Administration Report

Burma

1916-17 to 1918-19

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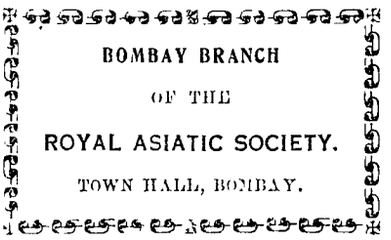

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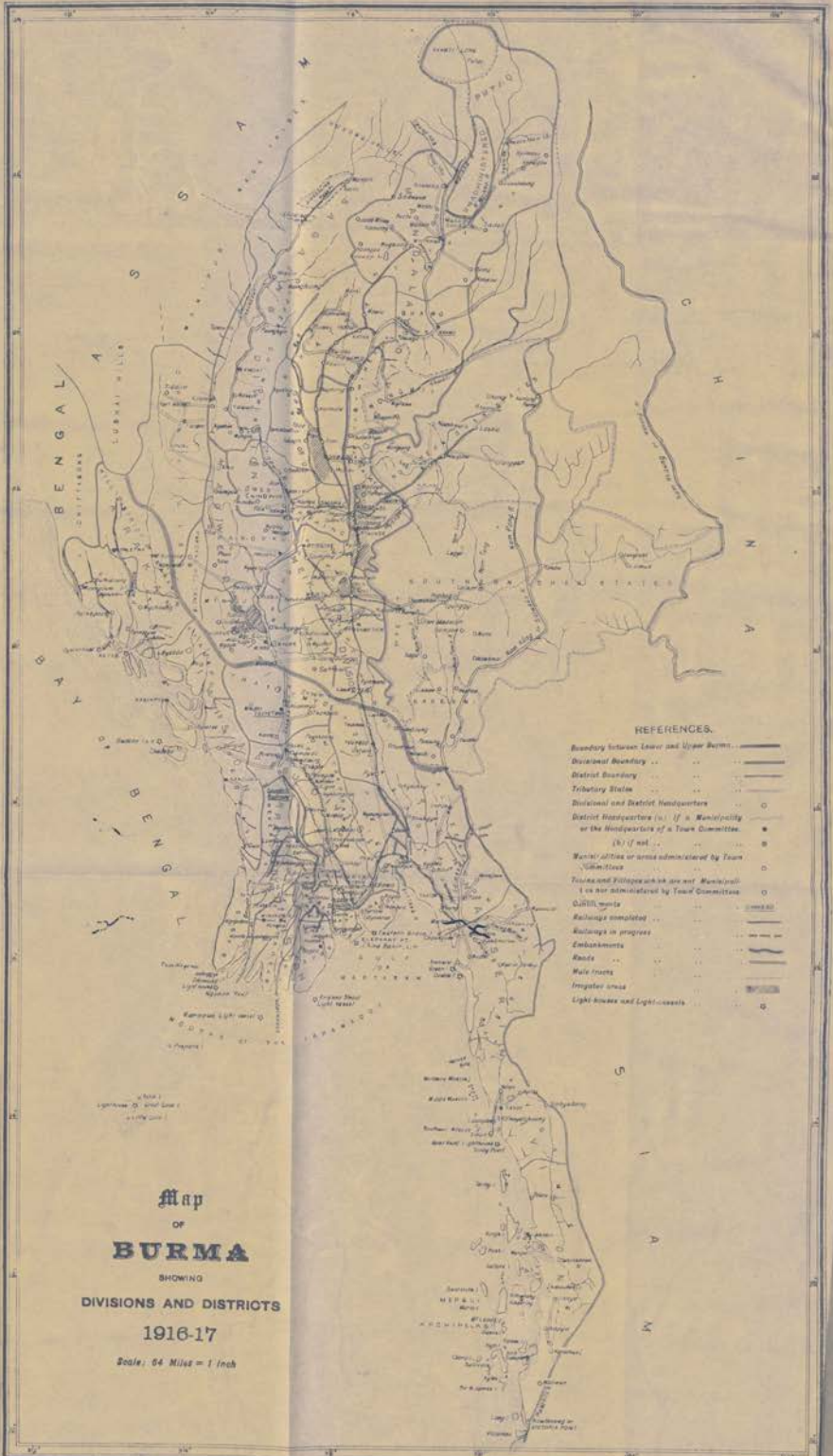

G. B. C. P. O.—No. 844. C. S.

REPORT

ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR

1916–17 to 1918-19

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RANGOON
OFFICE OF THE SUPERINTENDENT, GOVERNMENT PRINTING, BURMA
1918

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REPORT

ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR 1916-17.

PART I.

NARRATIVE CHAPTER.

1. The outstanding feature in the history of the Province of Burma has been the rapidity with which it has been developed and drawn into the world-wide organization of markets which is the chief differentiating character of modern times. Lower Burma, which forty years ago was a very thinly populated country of swamps and forests, is now one of the principal rice-exporting areas of the world. In Upper Burma, for the most part a country of scanty rainfall with a system of mixed farming, the stimulation of cotton cultivation owing to the establishment of mills by Indian and European capitalists, and the introduction of groundnut cultivation have in recent years caused an increasing tendency towards the supersession of a local or village economy by a more industrial economy. The Burman, though reputed to be easy-going and improvident, has shown considerable readiness in adapting himself to the rapidly changing conditions, and the greatest achievement in the history of the Province, namely the colonization of Lower Burma, has been almost entirely the work of the Burmese. The main wealth of the country comes from agriculture, and, in spite of the growth of landlordism and of the development, in parts of Lower Burma, of industrial conditions of agriculture, the vast bulk of the land of the Province is worked by peasant-proprietors. In addition to her agricultural wealth, Burma possesses great natural wealth in her teak forests, in her deposits of oil, and in the stores of metalliferous ores, whose possibilities have only of recent years been properly appreciated. For the exploitation of these resources, which is necessary if the needs of the modern world, taken as a whole, be considered, the Burmese have had neither the necessary organization and skill nor the capital, and it has had to depend on European and Indian capital, and very largely on Indian labour, as have the industries connected with agricultural produce for which large capital is required. So, apart from household industries, the industrial occupations of the country are largely in the hands of the immigrant Indian population, while the bulk of the indigenous Burmese population is agricultural.

The history of Burma in 1916-17 is that of a province whose prosperity depends very largely on the demand in the world's markets for the commodities it produces, in the third year of a war which, while it had profoundly disturbed the organization of trade, had caused a greater demand for these commodities.

2. As the vast majority of the population depends on agriculture, the two main factors in the material prosperity of the people are the crops and the prices current for agricultural produce. In 1916-17 both crops and prices were distinctly better than in either of the two preceding lean years. In Lower Burma the monsoon was a favourable one, and, except in the Arakan Division,

the year was a good one, much less damage than usual being caused by floods. In Upper Burma, in spite of unfavourable conditions at times and in places, as is inevitable in a country of sparse rainfall, the season was on the whole a fair one. The favourable weather conditions are reflected in the statistics relating to agriculture. The area under cultivation, 14,415,000 acres, and the area on which a matured crop was grown, 13,745,000 acres, are both the highest on record for the Province. In Lower Burma the rice-crop was good. The general shortage of food-stuffs in the world, combined with a recovery from the disorganization of trade that followed the outbreak of war, resulted in much better prices being realized than in either of the two preceding years. There were many sudden and sweeping fluctuations in the market due to the action of speculators, who were gambling on the expectation of purchases being made by the Food Controller at home, and on the chance of shipping being available for the known large demand in Ceylon, the Straits and Java. Thus at Rangoon the price ranged between Rs. 98 and Rs. 140 per hundred baskets. The average price realized by the cultivators may be taken as Rs. 111 per hundred baskets, as compared with Rs. 97 in 1915-16 and Rs. 91 in 1914-15. In Upper Burma, crops of sessamum and groundnut were good and realized excellent prices. In response to favourable prices in the previous year, the cultivation of both cotton and white beans had expanded, yields were good, and, thanks to the strong demand from England, prices were phenomenally high. There was a marked increase in the area under both chillies and onions, and prices continued to rule high. So, throughout the Province generally, crops were good and prices good. For the second year in succession the toll levied by cattle-disease was extraordinarily light. Thus the year was a prosperous one for the cultivator and the classes depending on agriculture. The returns of railway traffic and the statistics for the registration of deeds bear witness to the improved conditions during the year.

It would be idle to claim that the Province enjoyed the same prosperity as in favourable years before the war. Though both crops and prices were better than in the previous year, yet, owing to the prolongation of the war, money was tighter. In Lower Burma there was a considerable increase in the area of land under mortgage, and, in consequence of mortgagees pressing for the return of loans, a striking increase in the area of land sold. Tightness of money and the high prices of imported articles cramped local trade. The high prices of imported cotton piece-goods and yarns were felt, to some extent at least, in every household. But, generally, the Province enjoyed conditions of comparative prosperity in a year when there was more misery in the world than in any year since the Black Death. The improved economic conditions synchronized with an improvement in the health of the people. The death-rate compares exceedingly favourably with that of the previous year, and was the lowest for the year for any Province in India except Madras. The only considerable epidemic disease was an outbreak of plague, confined to the towns. The Provincial birth-rate, for some unaccountable reason, was lower than in the previous year.

The wealth of the Province is made manifest by the raising during the year of a War Gift of Rs. 29 lakhs, in addition to large subscriptions to the War Loans. The loyalty of the Province is evidenced by the fact that, in response to the desire of the Burmese to serve as soldiers and take a share in the war, a company of Military Police, a battalion of infantry and a labour corps were enlisted during the year, and additional battalions of infantry are now being and about to be raised. The keenness of the Burma Military Police to volunteer for war service continued unabated. A contingent of Military Police mounted infantry was sent on active service as a self-contained unit, in addition to numerous drafts sent to Indian regiments at the front.

3. Mainly as a result of the favourable season, the demand of land revenue amounted to Rs. 304 lakhs, some Rs. 9½ lakhs more than in the previous year. There was less difficulty in collecting revenue, and remissions were very much less than in either of the two preceding years. During the year, revised revenue settlements came into operation in three Districts, and were sanctioned for nine Districts more. The outstanding feature of the year in land revenue

administration is the introduction of "lump-sum assessments" over an area of 850 square miles in the Lower Chindwin and Myingyan Districts. By this system, which was first introduced on the re-settlement of the Meiktila District, instead of annual maps and revenue-rolls being maintained for each *kwin*, or unit of assessment, a lump sum is fixed, for the payment of which all the cultivators working in such *kwin* are jointly responsible. The system is applied only in poor localities where cultivation is sparse, and where the cost of the normal method of assessment bears an unduly high proportion to the amount of revenue. The new system benefits Government by reducing the cost of assessment, and also the cultivators, inasmuch as they are saved the trouble incident to the visits of a revenue-surveyor.

The Co-operative Department continued during the year, on a larger scale than ever, its work of teaching the value of organization and proper methods of business, and of demonstrating the benefits of co-operation, and so helping the Burmese to hold their own in rapidly changing economic conditions. The steady expansion of the movement, which has been so conspicuous in recent years, persisted in 1916-17, and there were at the close of the year a total number of 2,575 co-operative societies of all sorts. The vast majority of societies are, of course, agricultural credit societies. The expansion during the year would have been much greater but for the effect of the war in limiting the extent to which the Upper Burma Central Bank, which holds the fluid resources of the whole co-operative movement, could increase its funds. The organization of the societies into central unions, and the devolution of large powers of control and management from Government officials to the unions, were proceeded with during the year. The unions carried out these duties remarkably well. The recently instituted policy of colonizing waste spaces by organized bodies of settlers financed by Government through the medium of co-operative societies, was carried on in five different areas throughout the Province. It is a matter for satisfaction that in the area in which the policy was first started five years ago, in spite of the depression due to the war, and in spite of the colonists having been particularly unfortunate in 1916-17 in the sale of their paddy, there has been no tendency for them to part with their land. The remarkable freedom from cattle-disease enjoyed by the Province in 1915-16 proved an ill wind for the cattle-insurance societies, which are still in their infancy, the premia appearing high relatively to the small benefit actually received. So there was only a moderate expansion in this class of society. The co-operative societies as a body rendered yeoman service in helping to collect small subscriptions to the War Loan.

Among numerous experiments with a multiplicity of plants, the most economically important research work done by the Agricultural Department was the development of improved strains of paddy which will combine high yielding capacity with suitability for the European market. Experiments were made with imported Javanese and Japanese plants, in the hope of finding strains suitable for areas with poor conditions of soil or rainfall. The most promising result of experiments with imported cottons is a cross between Broach cotton and the long-lived Burma variety, which, it is hoped, will combine the finer and longer staple of the former with the larger outturn of the latter. Large quantities of seed of selected varieties of paddy were distributed during the year.

4. The exploitation of the natural wealth of the Province was prosecuted with energy. The year was a busy one in the forests. The urgent need of timber of all sorts in Mesopotamia, and the strong demand for teak in India owing to the requirements of the Military Department and the impossibility of obtaining metal building materials, combined with the fact that the season was a favourable one for the extraction of timber, resulted in a marked increase in the quantities extracted both of teak and of other sorts of timber. There was also increased extraction of fuel, owing to the difficulty of obtaining coal for the railway engines and steamers of the Province. In mining too there was unusual liveliness. In the previous year, owing to the clamant need of wolfram for the manufacture of high-speed steel, there had been remarkable activity in wolfram-mining, especially in the Tavoy District. This activity was enhanced in 1916. The Local

Government took special measures to increase the output. The staff of officials was strengthened. The shortage of labour was met by the importation of Indian and Chinese coolies by Government agency. Large sums were expended on improving communications. In response to these measures the output of wolfram increased markedly. In the Northern Shan States, the Burma Mines Company, in spite of being hampered by difficulty in importing materials, made immense strides in developing the mines at Bawdwin. The output of both silver and zinc was vastly increased, and that of lead more than maintained.

The activity in tin mining, which has marked the last few years, was in 1916 more in evidence than ever. The expectation that this industry will expand very much beyond its present limits is made more probable by the discovery during the year of valuable deposits of tin in the Thatôn District.

Apart from these new developments, the normal exploitation of the mineral wealth of the Province proceeded apace. The output of petroleum, 292 million gallons, is the largest on record. Prospecting for minerals, especially for wolfram in Tavoy, was remarkably active.

5. In spite of the fact that a phenomenal rise in prices makes it difficult to compare the volume of trade with that of previous years, it is beyond question that, in 1916-17, the trade of the Province made an appreciable recovery from the set-back immediately ensuing on the outbreak of war. The aggregate value of the sea-borne external trade of the Province during the year was Rs. 69,88 lakhs, a figure 22 per cent. in advance of the previous year's, and exceeded only in the particularly prosperous years 1912-13 and 1913-14. The improvement in trade took place in spite of a falling-off in the total tonnage of the ships entering and leaving the ports of the Province. The number of vessels actually increased, owing to a large rise in the numbers of small sailing craft engaged in the coasting trade. But the number of steamers continued to decline. Among these steamers the British flag was less in evidence than in the previous year, while the proportion of Japanese ships increased considerably, and that of Dutch ships strikingly. The noteworthy features of the year were a fall in exportations to the United Kingdom, increased importation of manufactured articles from Japan, and of cotton goods from India.

Among imports into Rangoon cotton goods easily held pride of place. The outstanding feature in the year's increased importations was the extent to which goods of Indian manufacture, both piece-goods and yarns, replaced Lancashire goods. The general increase in the cost of living caused a heavy fall in importations of silk, more or less a luxury article. Yet it is clear that all classes did not feel the need to economize, as the value of motor cars and motor cycles imported was nearly double that of any previous year. As was to be expected, there was a marked fall in importation of ores and metals. On the other hand, importations of hardware rose, Japan's contribution increasing strikingly. Shortage in the United Kingdom was responsible for a decrease in importation of provisions, and also in importation of sugar from Java. The quantity of alcoholic liquors imported was very much smaller than usual. But importations of salt, in consequence of a threatened shortage, were the largest on record.

The real improvement in trade lay chiefly in increased exportation to countries other than India. Among exports from Rangoon, rice was easily first in importance. In spite of abnormally high freights and shortage of tonnage, the quantity exported, nearly 2⅓ million tons, was greater than in the previous year and surprisingly little less than in the years immediately preceding the war. Over a million tons went to India. The United Kingdom, taking over 300,000 tons, more than ever before, was the next best customer. The Straits Settlements, Ceylon and the Dutch East Indies took most of the remainder. Difficulty in importing oil into India from America and the Dutch East Indies, and the need of petrol for the military authorities in India and Mesopotamia were the prime factors in causing an increase in exportations of mineral oils to 156 million gallons, a record figure. Owing to the demand for paraffin wax for making munitions in the United Kingdom, America and Japan, there was a substantial increase in exportations of that commodity. There was an improvement in the teak trade,

too, mainly owing to the demand in India. A strong demand in the United Kingdom led to increased exportation of groundnut oil, white beans, and also of cotton. War requirements were responsible for a strong demand for the rapidly increasing output of rubber and wolfram, and exportations of both these commodities were easily the largest on record.

The value of transfrontier trade, Rs. 948 lakhs, was substantially greater than in the previous year. The main factor in the improvement was an increase in the material supplied to, and in the output of metals from, the Burma Mines Company's property in the Northern Shan States. Apart from this, the actual volume of trade diminished, though the rise in prices obscures the extent of the decline.

6. A large increase in the total revenue, accompanied by practically no increase in the total expenditure, is the feature of note in the finances of the Province for the year. The gross receipts of revenue were Rs. 12,72 lakhs, some Rs. 130 lakhs more than in the previous year, while the gross expenditure rose by only half a lakh to Rs. 876 lakhs. There was no change in the Provincial Settlement according to which the receipts from the various sources of income and the expenditure of the various departments is distributed between the Imperial and the Provincial budgets. Imperial receipts amounted to Rs. 429 lakhs, some Rs. 64 lakhs more than in the previous year, while Provincial receipts increased by Rs. 39 lakhs to Rs. 593 lakhs. The largest contribution to the rise in Imperial receipts came from Customs, as a result partly of enhanced customs dues and partly of improved trade. Receipts from Salt were greatly increased owing to increased importation and increased manufacture, and the enhancement of both the customs and the excise duty. Income-tax yielded more than in the previous year, entirely as a result of enhanced rates. A large increase in revenue from Forests is the principal item in the increase in Provincial receipts. Both Imperial and Provincial receipts benefited by increased returns from Land Revenue, Excise and Stamps. In consequence of reduction of outlay on public works, both Imperial and Provincial expenditure fell, the former by Rs. 11 lakhs to Rs. 62 lakhs and the latter by Rs. 5 lakhs to Rs. 559 lakhs.

The war has had very little adverse effect on the ordinary income of municipalities. The ordinary income of the Rangoon Municipality increased, as did the total income of the minor municipalities. The expenditure of the minor municipalities decreased, owing to enforced economies. In Rangoon there was a decrease in the ordinary expenditure, but, as it was impossible to borrow money, payments had to be made from revenue for works for which loans will ultimately be raised, a policy which led to the municipal banking account being seriously overdrawn.

Practically all the other Funds of the Province were in a healthy condition during the year.

7. The war has compelled the curtailment of the activities of the various Government departments and public authorities responsible for the construction and maintenance of public works and the supply of public services. Owing to the necessity for economy, the total expenditure on public works executed by the Public Works Department for all departments of Government and for local Funds, fell to Rs. 125 lakhs, some 11 per cent. less than in the previous year. New works have been undertaken only when urgently required. The improvement of communications in the Tavoy District received special attention with a view to increasing the output of wolfram. Elsewhere, expenditure on roads was mainly devoted to the replacement of old timber bridges by permanent structures of steel and concrete. To organize and co-ordinate schemes for the construction of the roads which the Province so urgently needs, two officers were placed on special duty to draw up programmes of road-construction for each District in the Province. In other respects, apart from the maintenance of existing works, little was accomplished during the year. At Rangoon a new Customs House and a new Telegraph Office were completed. The sites of several low-lying towns in the Delta were reclaimed. A camp at Thayetmyo and a sanatorium at Shwebo were built for Turkish prisoners of war interned in the Province.

The war has adversely affected municipal administration, both by making it impossible for municipalities to borrow money for any large works, and also by making unprocurable, or procurable only at prohibitive prices, the imported materials for works for which funds are available. Rangoon, which depends most on borrowed funds, has been the worst affected. Expenditure on roads was less than half the amount spent in the previous year. Improvements in street-lighting, in the water-supply and to the slaughter-houses were the only items of work accomplished, apart from the ordinary administration. Difficulty in obtaining materials hampered the execution of schemes in hand in the case of several of the minor municipalities. Apart from this, their administration was satisfactorily carried on during the year. In view of the successful administration in recent years of certain municipalities in which the non-official element is strong, the Local Government had under consideration the question of entrusting these municipalities to non-official committees. In the year of report, however, the interest evinced in the elections in those municipalities in which the elective system is in force, was disappointingly little.

The Medical Department suffered from the absence, on military duty, both of military doctors and of civil doctors who have gone as volunteers. Fortunately, the year was a very healthy one, so that the trouble that might have arisen from the dearth of doctors was not realized. The number of public medical institutions was increased during the year and provided relief for an increased number of patients. Substantial grants were made from Government funds to several societies for the prevention of infantile mortality, in the hope of reducing the appalling waste of infant life. Three new societies were formed. The marked fall in infantile mortality during the year is probably due to other causes. But such societies can probably claim some credit for the urban death-rate being much lower than the rural.

8. The year witnessed no diminution of the continuous increase of crime which has been the most disquieting feature in the administration of the Province. The volume of crime taken cognizance of by the police exceeded all previous limits, and the number of cases dealt with by the criminal courts showed a like advance. Violent crimes increased, murders, dacoities and burglaries being all more numerous than in the previous year. But the most marked increase was in cases of theft, due to poor harvests and depression of trade in 1915-16. The problem presented by the increase of crime received particular attention during the year. Special investigations into the causes of crime were made. In recognition of the fact that the best method of coping with crime probably lies in the improvement of village administration and bringing the administration of justice more into touch with local opinion, the Local Government had under consideration a scheme for the formation of benches of headmen to exercise magisterial and executive functions in groups of village-tracts. The increase of crime is doubtless in part attributable to the police being hampered by additional duties entailed by the war, and the absence of a large proportion of the officers on military duty. In spite of these disadvantages, the success of the police in the detection of crime, viewing all classes of crime as a whole, was maintained at the same level as in recent years, though there was a falling off in success in dealing with the most serious classes of offence. The overcrowding of the jails, the corollary of the growth of crime, continued, and would have been worse than ever before, had not special measures been taken in order to its reduction. Over a thousand prisoners, who were deemed fit subjects for clemency, were released during the year. Schemes for further relief by employing convicts on public works were under consideration. The repeated exhortations of the Local Government bore fruit in a reduction in the number of sentences of imprisonment in the courts, notably in short-term sentences. In consequence of a fall in the number of first offenders released on probation, and of a considerable proportion of the fines imposed remaining unrealized, the Local Government again called the attention of Magistrates to the necessity of releasing first offenders in all suitable cases, and also of not imposing excessive fines. In the hope of reducing crime by the moral uplifting of youthful offenders, an interesting experiment was started by the

opening, in conjunction with the Salvation Army, of a home at Rangoon for young released prisoners.

9. There were several notable new departures in the administration of education during the year. In order to bring the control of education more into touch with local opinion, both official and non-official, a Divisional School Board was created for each Division of the Province. These Boards took over from the Education Department the control of vernacular education in their several areas. The Rangoon School Board was formed to fulfil the same function in Rangoon. A committee was appointed to deal with the question of female education in the Province and made recommendations, mainly in the direction of emphasizing the importance of teaching girls domestic economy and needlework. Another committee considered the best methods of inculcating the Imperial Idea and fostering patriotism within the Empire among the Burmese The training course for teachers in the Normal Schools was revised during the year. Apart from these novel features, the expansion of education took place at the normal rate. Both the number of public schools and the number of scholars in attendance increased, the increase being shared by all classes of institution except lower primary schools. The numbers of pupils passing the various school examinations were in every case considerably higher than in the previous year, as were the numbers who passed the Calcutta University examinations for degrees. Expenditure on education, in a year when the war imposed the necessity of the strictest economy on all Government departments, was a lakh and a half of rupees more than in the previous year, and amounted to Rs. 67 lakhs. A most gratifying feature, in view of the needs of the Province for doctors, engineers and scientific experts of all sorts, and the aptitude of the Burman for such professions, is the increasing interest taken in scientific and allied subjects. The science classes at the two colleges are expanding and attracting many of the best students. The number of graduates in Science increased strikingly. The number of students at the Government Medical School was much greater than in the previous year, and the educational qualifications of the newcomers is improving. Sixteen students, of whom ten, including one lady, were Burmese, passed the final qualifying examination, a number more than twice the average of the last five years. The number of students at the Government School of Engineering at Insein has reached the maximum possible with the present inadequate staff and equipment, and the reconstitution of the school on a larger scale is under consideration.

10. There was no cessation in the great decline in the publication of books that has accompanied the war. Curiously enough, the reduction is most marked in the case of books on religious subjects, while books dealing with the war are conspicuous by their absence. The most significant feature in the literary output of the year is the large number of novels, depicting modern Burmese life, written in language very near to colloquial Burmese and modelled on the pattern of the modern English novel. Most of these novels are crude pieces of work. Much of the psychology is borrowed from the English models, and the influence of the cinema is easily traceable in the construction. And a satisfactory compromise between the old-fashioned literary language and the vastly different colloquial language has not yet been attained. But the quality of these works is improving rapidly. In archæology, an important discovery resulted from the study of the frescoes found in 1916 at Minnanthu near Pagan. The evidence of these frescoes establishes what hitherto has been merely a conjectural theory, namely that before the introduction of the southern school of Buddhism on the conquest of Thatôn by Anawrata in the eleventh century, Buddhism of the northern school was in vogue at Pagan. It appears to have been introduced from Bengal or northern India about the sixth century.

11. In the Shan States and on the north-east frontier the year generally was quiet and uneventful. There was some excitement, but nothing more, on the Burma side of the Chinese frontier, as a result of the opposition aroused across the border by the efforts of the Chinese officials to eradicate poppy-cultivation. Apart

from mining activity in the Northern Shan States and in Karenni, and an improvement in the teak-trade in the latter, trade everywhere was dull. Crops were generally good, and the year was a healthy one for man and beast. There was very little serious crime. In the Chin Hills the cordial response among the Northern Chins to the call for volunteers for the Labour Corps was the outstanding event of the year.

12. No narrative of the events of the year in Burma would be complete without a reference to the visit of His Excellency the Viceroy, which took place in December 1916. Burma has hitherto been unfortunate in the fact that the visits of Viceroys have generally taken place during the last year of their Viceroyalty, and before the results of such visits could be expected to mature, the high office of Viceroy has been occupied by a new incumbent. In the case of His Excellency Lord Chelmsford this practice has been reversed, and the Province may expect to benefit thereby by a greater appreciation at Delhi and Simla of her needs and her resources. As in other Provinces, every department of administration in Burma has been short-handed. Some important charges have had to be combined under single officers, and others entrusted to officers of lower status and less experience than has been found possible in normal times. A notable feature has been the demonstration of the capacity of the Burman, as well as of the potentialities of the Province. Burmans have been recruited for the Military Police and for the Army to an extent which only a short time ago would have been considered impossible, and this fact alone may be accepted as a happy augury for the future development of Burma and her people. While the war lasts, it is impossible for much progress to be made in communications, agricultural, commercial and industrial development; but the moment that the pressure of the war is relaxed the time will be ripe for great strides forward in the desired directions. On the political side, also, there is great scope for future development; but it is absolutely essential for the welfare of Burma and her people that the foundations for this development should be well and truly laid.

PART II.

DEPARTMENTAL CHAPTERS.

NOTE.—The departmental reports and other references on which this *Report on the Administration of Burma* is based, are noted at the beginning of each chapter. The departmental reports do not all cover the same period The Reports on the Administration of Civil and Criminal Justice, the Police, Prisons, the Registration Department, the Salt Revenue, the Measures adopted for the Extermination of Wild Animals and Poisonous Snakes, Lunatic Asylums, the Report of the Chemical Examiner, the Report on the working of the Indian Factories Act, 1911, and the Resolution on the Reports on Village Administration deal with events which took place within the calendar year 1916; the Shan States, Chin Hills and North-Eastern Frontier Reports, the Land Revenue, Land Records, and Forest Administration Reports, the Season and Crop Report, the Report on the working of the Co-operative Societies Act, and the Report of the Department of Agriculture are concerned with the agricultural year from the 1st July 1916 to the close of June 1917. All other reports cover the twelve months of the official or financial year that ended on the 31st March 1917.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

REFERENCES—

Report on the Administration of the Shan and Karenni States for the year ended the 30th June 1917.
Report on the Administration of the Chin Hills for the year ended the 30th June 1917.
Report on the North-Eastern Frontier for the year ended the 30th June 1917.
Season and Crop Report of Burma for the year ended the 30th June 1917.
Land Records Administration Report of Burma for the year ended the 30th June 1917.
Report on the Civil Veterinary Department (including the Insein Veterinary School), Burma, for the year ended the 31st March 1917.
Report on the Sanitary Administration of Burma for the year 1916.

PHYSICAL.

Physical Features of the Country, Area, Climate, and Chief Staples.

For information on this subject reference should be made to paragraphs 1 to 8 of the *Report on the Administration of Burma* for the year 1911-12.

POLITICAL.

Historical Summary.

For information on this subject reference should be made to paragraphs 9 to 18 of the *Report on the Administration of Burma* for the year 1911-12.

Form of Administration.

For information on this subject reference should be made to paragraphs 19 to 38 of the *Report on the Administration of Burma* for the year 1911-12 and to paragraph 1 of the *Report on the Administration of Burma* for the year 1914-15.

Character of Land Tenures: System of Survey and Settlement.

For information on this subject reference should be made to paragraphs 39 to 55 of the *Report on the Administration of Burma* for the year 1911-12.

Civil Divisions of British Territory.

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For information on this subject reference should be made to paragraphs 56 to 68 of the *Report on the Administration of Burma* for the year 1911-12 and to paragraph 2 of the *Report on the Administration of Burma* for the year 1914-15.

Details of the last Census: Tribes and Languages.

For information on this subject reference should be made to paragraphs 69 to 76 of the *Report on the Administration of Burma* for the year 1911-12.

Changes in the Administration.

The Lieutenant-Governor.

1. The Hon'ble Sir Spencer Harcourt Butler, K.C.S.I., C.I.E., I.C.S., was Lieutenant-Governor of Burma throughout the year.

Administrative territorial changes.

2. A new Township, called the Syriam Township, in the Kyauktan Subdivision of the Hanthawaddy District, was created with effect from the 1st June 1916, consisting of Syriam Town and eighteen village-tracts which were transferred from the Kyauktan Township. Two village-tracts were excluded from the Kyaukpadaung Township of the Myingyan District and included in the Taungtha Township of the same District. With effect from the 1st July 1916, the reconstituted Sale Township of the Myingyan District was transferred to the Magwe District. The eastern and southern boundaries respectively of the Shwegu and Bhamo Townships of the Bhamo District were revised during the year. Eleven village-tracts were excluded from the Kyaukkyi and included in the Shwegyin Township of the Toungoo District. The boundaries of the Kamaing Township, and the boundary between the Myitkyina and the Mogaung Townships of the Myitkyina District were renotified, a more accurate description of the boundaries being given in both cases. A portion of the Lemyethna Forest Reserve was transferred from the Ngathainggyaung Township of the Bassein District to the Lemyethna Township of the Henzada District, so as to make the boundary between the Henzada and Bassein Districts coincide with the southern boundary of the Lemyethna Forest Reserve.

Additions to and changes in the Administrative Staff.

3. An increase of one in the fourth grade of the Subordinate Civil Service was made in order to provide for the Township Officer of the newly-created Syriam Township. One appointment was added to the fourth grade of the Provincial Civil Service on account of an officer being appointed as Assistant Superintendent at Namtu in the Northern Shan States. The third grade of the Provincial Judicial Service was increased by one owing to the creation of the appointment of second Additional Judge for the Court of Small Causes at Rangoon. In February 1916 His Majesty's Secretary of State sanctioned a scheme distributing among the several grades of Deputy Commissioners certain superior appointments in the Burma Commission. As the necessary provision had not been made in the Budget for 1915-16, it was decided to postpone the introduction of the scheme, which was, however, brought into effect from the 1st January 1917.

Relations with Tributary States and Frontier Affairs.

(i) *Shan and Karenni States.*

[*Southern Shan States* : 37 *States, area* 36,154 *square miles, population* 836,574, *tribute Rs.* 2,71,800 ; *Karenni* : *five States, area* 4,280 *square miles, population* 63,628, *tribute Rs.* 5,350 ; *Northern Shan States* : *five States, area* 16,594 *square miles, population* 480,390, *tribute Rs.* 1,54,500 ; *Möng Mit* : *area* 3,562 *square miles, population* 53,214, *tribute Rs.* 20,000 ; *Hsawnghsup* (*Thaungthut*) : *area* 579 *square miles, population* 7,724, *tribute Rs.* 400 ; *Singkaling Khämti* (*Zingalein Kanti*) : *area* 983 *square miles, population* 2,560, *tribute Rs.* 100 ; *Khamti Löng* (*Kanti-gyi*) *or Bhor Khamti* : *area* 374 *square miles, population* (*approximate*) 6,661, *tribute Rs.* 2,500 (*approximate*).]

The Southern Shan States.

4. In the Southern Shan States imports and exports again declined and trade generally was dull. With few exceptions, however, crops were good and the

condition of the people was satisfactory. Peace was maintained and there was but little serious crime. As usual there were several destructive fires, one at Aungban in April destroying property to the value of over one lakh of rupees. The development of Kalaw as a hill station continued. The *Ngwegunhmu* of Nam Hkai having died without issue, that State was in April united with Loi Long. The eldest son of the late *Myosa* of Möng Hsu was placed in charge of that State pending arrangements as to the succession. The administration of the Chiefs was generally satisfactory. In well-ordered States improvement was maintained and, except in Möng Nawng and Hsa Möng Hkam, the less efficient Chiefs got through the year without any serious trouble. The *Myosa* of Möng Nawng again ran into debt and resorted to highly improper means to procure money for his extravangances. In Hsa Möng Hkam collections of revenue were made at rates much in excess of those sanctioned, and the proceeds were misappropriated. All Chiefs maintained guards at important roads and ferries to prevent the entry of seditionists. The Chiefs of the Southern Shan States gave effect to their resolution to do something as a body to help the Empire by joining in the Burma War Fund. Their personal contributions and collections, apart from subscriptions to various war charities, amounted to Rs. 1,62,777. They also took a full share in making the Indian War Loan a success, and over ten lakhs of rupees were subscribed during the year.

On the Chinese border rumours of disorder were current from time to time, but as a matter of fact conditions have been practically normal in the country immediately adjoining British territory. Three dacoities and a robbery with murder were committed by Chinese marauders from across the border. The disturbed conditions in Yünnan were responsible for the unusual strength, both in numbers and armament, of the caravans that visited Kēngtüng during the year. Two large parties gave trouble as they declined to hand over their weapons to the local officials. On the appearance of a force of military police, however, they surrendered their arms, which were returned to them on their departure. The anti-opium campaign was vigorously prosecuted by the Republican Government. Crops were destroyed, in spite of opposition, in Hsip Hsawng Panna, Keng Hung and Möng Lem. Conditions in the Mekong Province, the portion of French Indo-China that borders on British territory, were fairly satisfactory and martial law is no longer in force there. The Siamese border was entirely peaceful.

The number of cases reported during the year to the Government Police was 254 as against 289 in the previous year. There was a large decrease at Taunggyi and a large increase at Kalaw. Out of 103 persons sent up for trial 79 were convicted. The work of the State Police varied in quality from State to State. In Yawnghwe recoveries of stolen cattle and property fell. In the Myelat the police on the whole did good work. In the North-Eastern States police work was bad in Kehsi Mansam and fair elsewhere. The Kēngtüng Police got somewhat out of hand during the *Sawbwa's* absence but were fairly successful in dealing with cattle-theft. The number of true cases reported during the year was 1,255 as against 1,198 in 1915-16. These comprise 39 violent crimes, 175 cases of cattle-theft, 305 cases of ordinary theft and 736 cases of other forms of crime. Violent crime increased by 12, ordinary theft by 12, and other crime by 54, while cattle-theft decreased by 21. The violent crimes comprised 18 murders, 6 robberies with murder, 3 cases of culpable homicide, one attempted murder, 3 dacoities and 8 robberies. Five of the murders were committed by lunatics. There were 39 suits pending at the beginning of the year, 753 were filed during the year, 765 were disposed of leaving 27 pending at the close of the year. The total value of the 753 suits filed was Rs. 1,09,637 as against 738 suits valued at Rs. 1,08,318 last year. Over 68 per cent. of the suits filed were under Rs. 100 in value, only 14 were valued at over Rs. 1,000 and only one exceeded Rs. 5,000. Yawnghwe State is responsible for one-third of the total number of suits.

Everywhere except at Kalaw the rainfall was much greater than in the previous year. At Yawnghwe it was the greatest ever recorded and floods caused damage. Crops of hill rice were good everywhere and the main crop on irrigated land was well up to the average. The area under wheat increased but outturns declined.

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The year was an exceptionally healthy one for cattle, in spite of epidemic disease in the North-Eastern States and in Kēngtūng. Forest revenue for the year was Rs. 1,65,783 and expenditure Rs. 95,140. There were 44 forest offences of which 42 were compounded for a total sum of Rs. 461. Four applications for prospecting licenses were pending from the previous year and 30 were received during the year of report. Of these 12 were granted, 8 rejected and 5 withdrawn, while 9 were pending at the close of the year. There are five mining leases in force, all for lead. The output from the three mines that were working was 39,542 viss of pure lead and some 1,000 viss of ore. Little success attended the efforts of many of the prospectors for wolfram, but 10,385 lbs. were exported from Mawnang State. Of the public works carried out by Government the most important were at Kalaw. The scheme for the distribution of water, though not yet completed, was advanced sufficiently for water to be available during the greater part of the year. A drainage scheme and the construction of a bazaar were in hand during the year, and some four miles of road were opened up. The ward for Shan patients at the Loilem Hospital was finished. The steel bridge over the Tayaw stream was completed, and several wooden bridges on the main road were replaced by structures of reinforced concrete. The total expenditure was Rs. 2·09 lakhs on construction and repairs, and some Rs. 55,000 on contribution works. The States spent on public works a total sum of Rs. 3·58 lakhs as against Rs. 4·10 lakhs in the previous year. Most of the expenditure was on roads and communications.

In most of the States the year was a healthy one for man and beast. Food-stuffs were plentiful and generally cheaper than in the previous year. The cost of imported articles rose, but was not excessive. No class suffered severely from the effects of the war, except the timber-traders and the money-lendes who rused to finance them. The total revenue collected by the States was just under Rs. 12 lakhs as against Rs. 12·02 lakhs in the previous year. The number of patients treated at hospitals and dispensaries under the supervision of the Civil Surgeon, Taunggyi, was 44,467 outdoor and 1,328 indoor. The former class increased by 882 and the latter decreased by 81 as compared with the previous year. The patients attending hospitals under the supervision of the Civil Surgeon, Loimwe, numbered 12,788 outdoor and 715 indoor. There was a satisfactory increase both at Loimwe and Kēngtūng and a falling-off at Nammawngün. There was a slight epidemic of a mild type of plague at Kēngtūng and 500 people were inoculated. The American Baptist Mission Hospital at Möng Mai did another year's good work. The establishment under the Civil Surgeon, Taunggyi, performed 18,770 vaccinations of which 17,743 were successful. In the Kēngtūng State 3,356 persons were vaccinated, 2,889 successfully.

The two Deputy Inspectors of Schools, one at Taunggyi and one at Loilem had under their charge a total number of 145 vernacular public schools, with a total number of 4,085 pupils of whom 1,147 were girls. At present the progress of education is hampered by the lack of qualified local teachers. Lack of funds unfortunately prevented the establishment of the projected training school for teachers at Yawnghwe. But the best of the monastic schools are turning out trained pupils who find positions as teachers. The number of boys in attendance at the school for the Sons of Shan Chiefs at Taunggyi was 88, the limit of its present capacity. Eighty-seven boys were presented for examination in the various standards and 53 passed. One boy has reached the 10th Standard. The conduct of the pupils generally was satisfactory.

The Karenni States.

5. Except for the refusal of some Wiwa villages in Kyebogyi near the Toungoo border to pay the increased taxes demanded of them, the administration of the Karenni States was uneventful. The year witnessed an improvement in the timber trade, on which the prosperity of practically all classes depends, and prospects were distinctly brighter at its close than at its beginning. The price of teak rose slightly and a great deal of timber was sold. The rainfall was better than it has been for several years and with few exceptions crops were good. Importations of food-stuffs were in consequence much less than in the previous year. Cattle were generally healthy.

Increased activity was shown in the development of the Mawchi mines and the output of concentrates—consisting of tin and wolfram in approximately equal quantities—rose from 368 tons in 1915-16 to 670 tons. At the Lokalo deposits on the western side some promising veins were struck. Trade was much better than in the previous year, and there was marked expansion in the exportation of both lac and hides.

Conditions on the border were satisfactory and relations with the Siamese officials were cordial. The chiefs continued to keep watch on the Salween ferries and important roads, to guard against the entry of evilly-disposed persons. One hundred and forty-four cases came before the Courts comprising 4 violent crimes, 38 cattle-thefts, 32 ordinary thefts and 70 "other crimes." All the violent crimes were murders or homicides. In two cases the accused were sentenced to transportation for life and in the other two, which were homicide cases, compensation was paid in accordance with Karen custom. Of the 38 cases of cattle-theft, only 16 were brought to Court, 28 out of 38 persons apprehended being convicted, and the others discharged. Twelve civil cases were pending at the beginning of the year; 60 new suits were filed; and 10 remained at the close of the year. The value of the 60 new suits was Rs. 59,249 and all but two were in respect of money transactions. About one-third of the suits were under Rs. 100 in value.

The gross revenue of the five Karenni States rose from Rs. 1·72 lakhs in 1915-16 to Rs. 1·90 lakhs. In Kantarawaddi collections were Rs. 1·34 lakhs as against an estimate of Rs. 88,000, an increase entirely due to enhanced receipts of forest revenue. The reserve fund stands at Rs. 80,000 invested partly in Exchequer Bonds and partly in Indian War Loan Bonds. The expenditure on public works in the States was Rs. 22,578 from revenue and Rs. 2,500 from remissions of tribute. In Kantarawaddi the most important work was the Loikaw-Tisaka road which cost Rs. 16,509. Over Rs. 2,000 was usefully spent in blasting rocks in the Me-Pai stream. The Loikaw Civil Hospital treated 5,806 outdoor and 141 indoor patients as against 6,508 and 129 respectively in 1915. The Education Department dealt with 39 schools as against 34 last year and 27 in 1914-15. Of the five new schools taken under control three belong to the American Baptist Mission and two are monastic. The number of pupils under instruction is 545 boys and 177 girls.

The Northern Shan States.

6. In the Northern Shan States the year of report was one of tranquillity. The only considerable disturbance of the peace was a half-hearted rebellion in the Manglün State, which was promptly quashed. The *Myosa* of Mothai in this State was suspected of sympathy with the attempted rising and also gave trouble by engaging in hostilities with the Wa Chief of Motle. There was considerable unrest during the open season in the Chinese Shan States across the border owing to the genuine efforts made by the Chinese officials to carry out the orders for the suppression of opium. There was fighting between the Chinese troops and the Kachins in Lungchu'an and later farther north in Santa. The fears of the Chinese authorities that Kachins from North Hsenwi might be involved proved groundless and the Kachins on the British side of the border did not show the slightest desire to join in the fray. Some complaints were made of British subjects planting opium in fields across the border, or letting their fields to Chinese subjects for opium cultivation. The crops had been destroyed by the Chinese officials before investigation could be made, but heavy fines were imposed in all cases where it was proved that the orders prohibiting the working of opium across the border had been infringed. The usual frontier meeting with the Chinese officials for the joint settlement of cases was held in January. Relations, though not marked by the extreme cordiality of the previous year, were at any rate friendly.

The sanctioned strength and caste composition of the military police was unchanged during the year. The health of the men was good, as was their discipline and their relations with the people of the country. The strength of the Government Civil Police Force remained the same during the year. Its discipline and conduct were fairly good. Three hundred and one cases were reported during the year to the Government Police. There were 13 violent crimes reported. There were 42 cases of cattle-theft as against 35 in the previous year. There

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were two serious cases of rioting among the coolies of the Burma Mines Company at Bawdwin. In one of these the volunteers had to be called out to repress some strikers who refused to leave the Company's premises and were intimidating other workmen. Twelve of the ringleaders of the strikers were deported.

The work of the State Police in the various States was not as efficient as it might have been. At Hsenwi the State Police were reorganised and statistics appeared for the first time. Frontier guards of village police were maintained in Hsipaw, South Hsenwi, and Manglün to watch for seditionists from Siam. The total number of offences reported during the year was 1,314 as compared with 1,103 in the previous year. The increase in the number of cases is due to the formation of a new Subdivision at Namtu and the increase of work on the premises of the Burma Mines Company, to a large number of prosecutions under the Municipal Act at Lashio, to prosecutions in North Hsenwi of persons who let their fields to Chinese subjects for opium-cultivation and to a number of prosecutions in South Hsenwi for contravention of the rules for the prevention of the spread of cattle disease. Violent crimes decreased from 43 to 26. The total number of cases of cattle-theft increased from 83 to 105. The number of civil suits filed in the courts of Government Officers rose from 92 to 133. The increase is largely due to the establishment of a civil court at Namtu and the admission therein of suits which ought to have gone to the Courts of the States. The number of suits filed in the States' Courts decreased from 384 to 283.

The year's rainfall was very unevenly distributed. In places the rainfall was above the normal, and in places much below it. The early and middle rains were plentiful and well distributed in some places, and failed in others. The October rains failed everywhere. The crop of upland rice was good throughout. Crops of lowland rice were excellent in some localities and very poor in others. On the whole the outturn of lowland paddy was short but was compensated for by the abundance of upland paddy. The tea crop was not so abundant as usual and prices were poor. There was a good crop of sessamum but prices were low. The year's crop of oranges was not good though the area continues to expand. The tobacco crop was poor owing to the lack of rain in October, and prices rose. The opium crop did splendidly. The chief feature of the forest administration of the year was the large quantities of fuel and timber extracted by the Burma Mines Company from the Panghai Reserve and adjacent unclassed areas. Immense strides were made by the Burma Mines Company in the development of the mines at Namtu and Bawdwin, in spite of difficulties in obtaining supplies. Good progress was made with tunnelling at the various levels, and with the construction of improved milling, smelting and refining machinery. Fourteen thousand one hundred and sixty-eight tons of refined lead and 5,222,489 ounces of refined silver were produced. Improvements to the railway continued to be made and during the year the tonnage transported amounted to some 236,000 tons. The electric plant installed last year was brought into operation in September 1916. The accommodation for both European and Asiatic employees was improved. Two large barracks of sun-dried bricks were built. Several bungalows for Europeans were built at Namtu and Bawdwin, and a new dining-hall was added to the residential club.

The total allotment for expenditure on public works in the Hsipaw State was Rs. 2·30 lakhs as against an expenditure of Rs. 1·68 lakhs in the previous year. The principal works in hand were the Ta-tung-ang suspension bridge, which was nearly completed, and the development of Hsipaw Town. In Tawngpeng the total expenditure was Rs. 1·57 lakhs, of which Rs. 53,000 went to the construction of a Court-house, and most of the remainder on roads and ferries. In the other States useful work was done on the construction and improvement of roads and bridges.

There were slight epidemics of plague in Kyaukme and Hsipaw, and one of small-pox in North Hsenwi. There was an outbreak of rinderpest in Hsipaw, but it was severe in only two circles. Rinderpest also broke out in North and South Hsenwi. Generally the condition of the people was prosperous. The war has caused loss principally to the big shopkeepers along the railway line and the people of the interior are not seriously affected by the prevalent high prices of imported articles. The Kachins and Was, thanks to a phenomenal opium crop which fetched big prices, were unusually prosperous. Steps were taken to encourage

sericulture, in case opium-cultivation should be restricted after the war. As part of a movement to train Shans as mechanics, four boys were sent down to the Engineering School at Insein. Many more would have been sent but for lack of accommodation. In order to provide facilities for education in agriculture in the Hsipaw State, arrangements were made for opening a State farm at Hsumhsai. Arrangements were also made for introducing co-operative societies in Hsipaw. The revenue of all the States showed an increase on the previous year's figures except in the case of Hsipaw. In Hsipaw expenditure exceeded receipts. The finances of the State, however, are quite healthy as the deficit is due to the fact that owing to the lateness of the season a large part of the tea-revenue remained uncollected.

A State dispensary was opened at Namhsan in Tawngpeng and by arrangement with the Burma Mines Company the general public were admitted to the Company's hospital and dispensaries. At all the institutions in the States for which statistics are available, the number of out-patients treated was 60,921 and of in-patients was 2,614. There was a total increase of 21,583 out-patients, including an increase of 1,156 at Government and State institutions. In-patients increased by 653 but there was a falling-off of 67 in Government and State institutions. In connection with the outbreaks of plague at Kyaukme and Hsipaw, 6,920 inoculations were performed. The total number of vaccinations performed was 8,133 as against 6,293 in the previous year.

A second Deputy Inspector of Schools was appointed for the States during the year, to supervise education in Tawngpeng and Hsipaw. The number of schools increased from 44 to 47, four new schools having been registered and one abolished. Of the 47 schools the only Government Institution is the Vernacular School at Lashio, 27 are State-managed, 9 belong to the American Baptist Mission, 8 are monastic schools and 2 are run by lay managers. The attendance increased during the year from 1,856 to 2,166, which figure includes 638 girls. There were 87 pupils receiving secondary education as against 67 in the previous year

Other Shan States.

7. In Möng Mit the year was tranquil and uneventful. There was a marked improvement in the State's finances, the revenue rising by Rs. 44,815 to Rs. 2·22 lakhs. The expenditure increased by Rs. 7,445 to Rs. 1·82 lakhs and there was a closing balance of Rs. 1·14 lakhs. Rainfall was poor and the main rice crop suffered in the Shweli area. Elephants were a scourge and, unless measures are taken to cope with them, there is a danger that they will depopulate the State. Old established villages are being abandoned owing to their depredations. And though settlers are anxious to come from Bhamo and Katha to take up the large areas of paddy-land available, fear of elephants keeps them back. There was no epidemic disease in the State during the year. There were 129 true criminal cases during the year. There were 99 civil suits instituted, the total value being some Rs. 9,000. A sum of Rs. 26,011 was spent on public works. In the Kodaung Hill Tracts crops were good, and the year was a quiet one. No difficulty was experienced in collecting the tribute, which amounted to Rs. 22,460. Progress was made with the settlement of village boundaries. In the Thaungdut and Kanti States in the Upper Chindwin District, there was no considerable trouble on the frontier. The maintenance of a military police post at Kanti prevented all raiding of administered villages. In Thaungdut crops were good and trade with Manipur proceeded as usual. In Kanti trade was stagnant.

(*ii*) *The Chin Hills.*

[*The Chin Hills proper, area approximately* 8,000 *square miles, population* 119,556 *; the Pakökku Hill Tracts, area appoximately* 2,200 *square miles, population* 17,128 *; Hill District of Arakan, area* 1,500 *square miles, population* 22,234 *; and tracts in the Upper Chindwin, Akyab and Kyaukpyu Districts.*]

8. The raising of a Labour Corps for France was the outstanding event of the year in the Chin Hills proper. One thousand Chin labourers were enrolled from the Tiddim Subdivision alone and proceeded to France. In the Falam Subdivision over 800 men volunteered within a week and the Haka Chins, if they had been called on, would also have responded. There was some inter-tribal fighting in the unadministered territory south-west of the Chin Hills and a technical violation of the frontier, which however, did not lead to fighting, was committed by a band of

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men from the unadministered village of Sabaungte, who entered the administered village of Lunsoite to demand the surrender of a woman who had lately been a slave.

The staple crops were generally good, but the wheat grown for the military police showed deterioration. Floods caused considerable damage to roads and bridges in the Falam and Tiddim Subdivisions.

There were very few cases of crime, and only one violent crime. There was no outbreak of cholera during the year, but dysentery caused a number of deaths at the beginning of the rains. Of late years the drinking of distilled liquor has increased greatly among the Chins and evil results are now becoming evident. In the Pakôkku Hill Tracts the only serious disturbance in an otherwise prosperous year, was the murder of a Sub-Inspector of Police by a band led by a Chin who had a grievance against the Sub-Inspector. This band, after losing one of their number in a fight with a body of police and armed villagers who went to search for them, took refuge in unadministered territory, and demonstrations by small bodies of military police had to be made and the unadministered area blockaded, before the ringleaders surrendered. In the Hill District of Arakan no raids on administered territory occurred during the year and raiding in unadministered territory by some Yallaing Shandus had no effect on the administered area. Three durbars were held and a large number of trans-border Chiefs attended for the purpose of having their disputes settled. In the Somra Tract adjoining the Upper Chindwin District no serious disturbance took place during the year. Three women were carried off from a village in Manipur territory by Nagas from Somra Piya but the order for their restoration was complied with readily. Seven people were killed in a fight between two Naga villages in the Somra Tract but the quarrel was composed and a blood-feud averted. An *ex*-Chief of Tangbuk attempted to stir up trouble, but the effort failed and he retired to seclusion near the Manipur border.

(*iii*) *The Kachin Hills.*

[*The Putao District and tracts in the Myitkyina, Bhamo and Katha Districts.*]

9. The peace of the north-eastern frontier was undisturbed throughout the year. The tribesmen who abandoned their villages during the troubles of 1915 are returning and the tracts are resuming their normal aspect. A new military police outpost was established at Punlumbum in this area. A blood-feud between two trans-border Chiefs, and disturbances on the Chinese side owing to measures to eradicate poppy-cultivation, failed to evoke any disorder in British territory. Owing to the war the Public Works Department could undertake no new works in the frontier Districts. But satisfactory progress was made in the opening-up of inter-village roads, and in the improvement and extension of mule-tracks by village agency. Crime decreased in Putao and Bhamo and Katha, but increased in Myitkyina. There was one violent crime in Putao, 8 in Myitkyina, 4 in Bhamo and none in Katha. Most of the violent crimes were murders. The number of criminal cases instituted in Putao fell from 62 in 1915-16 to 18 in the year of report. The decrease is due partly to fewer prosecutions of headmen for failure to improve the roads in their jurisdictions, and partly to a diminishing propensity among the people to take the law into their own hands. In Myitkyina the number of cases instituted was 146 as against 79 in the previous year. The increase was general and no special reasons can be given for it. In Bhamo there was no marked variation from the figures of the previous year. In Katha there was a considerable decrease. The number of civil cases instituted in Putao dropped from 24 in 1915-16 to 12 in the year of report. In Myitkyina there was an increase from 104 to 174. The increase is partly due to the extension of the territorial jurisdiction of the Courts and partly to the fact that the Kachins are acquiring a preference for the Courts where their disputes are settled with less expense and delay than by the village elders, and with finality. In Bhamo 74 cases were instituted as against 117 in the previous year and in Katha 35 as against 129. The tribute was everywhere collected without difficulty and to amounts very similar to those of the preceding year, except in Myitkyina where there was an increase of some Rs. 600 due to the return of tribesmen who had fled during the troubles in 1915. In Myitkyina three new forest reserves

were created. The output of jade in Myitkyina was 138,922 viss as against 117,548 viss in the previous year. The work of appointing new headmen and of issuing appointment orders was proceeded with during the year in the Putao and Myitkyina Districts. Progress was also made with the demarcation of the boundaries of village-tracts. In parts of the Putao District where land is plentiful the boundary-disputes that elsewhere are a fruitful source of quarrels among the Kachins are entirely absent and in many cases the boundaries are unknown. Several boundary-disputes were settled during the year. In the Putao District relations with the trans-border tribes remained satisfactory. In the Laza Sub-division, a trans-border feud threatened to involve trouble, and alarm was allayed only after the border was patrolled by military police. In Myitkyina two Kachins from the Hukawng valley carried off some property belonging to a headman in the Laban tract in settlement of an old debt. This was the only raid from across the border. No Chinese officials or soldiers crossed the frontier into the Putao District during the year and the only untoward incident was the carrying off by some Lisus from Chinese territory of a child from Namdawng village in the Akkyang valley, in satisfaction of a debt. The annual meeting between the Myitkyina District officials and the Chinese frontier officials took place at Sima and fifteen disputes were discussed. But the meeting was not altogether satisfactory. The annual meeting of the Bhamo officials was held at Nawngma and was successful. On the Bhamo frontier, with the exception of an unfounded allegation that British Kachins were being encouraged to help their congeners in Chinese territory in resisting attempts to eradicate poppy-cultivation, relations with the Yünnan authorities were satisfactory.

Condition of the People.

10. In Lower Burma generally the season was a favourable one. In the Arakan Division the abandonment of low-lying land in Kyaukpyu continued and throughout the Division conditions were very little, if any, better than in the preceding rather lean year. In the other three Divisions of Lower Burma, which comprise the important rice-growing Districts, agricultural conditions were good and the damage caused by floods was less than usual. Throughout the Lower Burma Districts the average yield of rice was 97 per cent. of the normal. The average price realized for unhusked rice in the Bassein District, which may be taken as typical of the Lower Burma rice-growing Districts, was Rs. 111 per hundred baskets as compared with Rs. 97 in 1915-16 and Rs. 91 in 1914-15 So it may be said that, in Lower Burma generally crops were good, and prices favourable. In Upper Burma, in the greater part of which the rainfall is scanty and capricious, the season taken as a whole was favourable, in spite of sporadic adverse conditions in various localities at various times. In the Magwe Division scanty middle rains damaged the rice crop in Thayetmyo but dry crops there were good and generally throughout the Division crops were fair. In the Sagaing Division irrigated rice suffered from the extreme lateness of the early rains and a late rise of the Chindwin damaged crops in the two Chindwin Districts. But generally throughout the Division crops were good and in the Sagaing and Lower Chindwin Districts markedly better than in the two previous years. In the Meiktila Division the year was a good one. In the Mandalay Division the year was a fair one. In the main, throughout Upper Burma harvests were good and prices good. The extraordinarily high prices prevalent for cotton and beans greatly benefited the cultivators in the Districts in Central Burma where these crops are grown. So throughout the Province generally crops were good and the prices realized were good and the condition of the people was much more prosperous than in either of the two preceding years. The price of imported articles has risen markedly, but the extent to which these are consumed by the vast bulk of the people is not such as to affect the standard of living appreciably. For the second year in succession remarkably little loss was caused to cultivators by cattle-disease. The health of the people was markedly better than in the previous year and the death-rate was lower than the average for the last quinquennium. General,

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Notable events of the year.

11. His Excellency Lord Chelmsford, P.C., G.M.S.I., G.C.M.G., G.M.I.E., Viceroy and Governor-General of India arrived in Rangoon on December 1st, 1916, and spent three weeks in a tour of the Province.

While His Excellency was at Rangoon there was handed to him a cheque for twenty-six lakhs of rupees, the amount that had then been collected for the Burma War Gift Fund which was started after the Day of Patriotic Resolve Meeting on August 4th, 1916. Subsequent subscriptions brought this Fund up to twenty-nine lakhs of rupees. The Province also subscribed handsomely to the Indian Government War Loan and War Bonds. An enthusiastic canvassing campaign was undertaken to stimulate interest in these and by the end of March 1917, only a fortnight after they were thrown open to the public, the total subscriptions of the Province to War Loan and War Bonds amounted to Rs. 28 lakhs.

But more than merely pecuniary evidence of the Province's loyalty was forthcoming. Ever since the beginning of the war there had been evinced throughout the Province an unmistakeable desire that the Burmese, among whom, except for a single company of Sappers and Miners, there had been no enlistment since the Pegu Light Infantry was disbanded in 1861-62, should be allowed to enlist as soldiers. In response to the military aspirations of the people, sanction was given during the year for the recruitment of a Burmese company of Military Police Subsequently, in November 1916, sanction was given for the raising of a Burmese regiment of Pioneers, which shortly later was transformed into an infantry regiment with the title of the 70th Burma Rifles. Recruiting was stimulated by the departure on active service, in October 1916, of the Burmese company of Sappers and Miners. In March 1917 sanction was given for the enlistment of a Labour Corps, and a Corps 2,000 strong was raised and despatched to France. There was a very strong Chin contingent in the Labour Corps. At the end of June 1917 a Recruiting Committee was formed to control recruiting throughout the Province both for the Labour Corps and for the military units.

CHAPTER II.

ADMINISTRATION OF THE LAND.

REFERENCES—

Report on the Land Revenue Administration of Burma during the year ended the 30th June 1917.
Land Records Administration Report of Burma for the year ended the 30th June 1917.
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Realization of the Revenue.

Demand, collections, remissions and outstandings.

12. Exclusive of the amounts to be credited to cess and irrigation, the aggregate land revenue demand for the year 1916-17 was Rs. 3,03·68 lakhs against Rs. 2,94·20 lakhs in 1915-16. Of this increase of nine and a half lakhs of rupees, about two and three-quarter lakhs of rupees may be ascribed to the introduction of revised rates. The balance was due to more extensive cultivation under the favourable conditions which prevailed throughout the greater part of the Province. In Lower Burma generally, the year was a good one and there was less damage by floods than usual. In Upper Burma, in spite of the failure of the early rains in some Districts, the year was, on the whole, a favourable one. In the Arakan Division, the assessed area in the Akyab District showed an increase of 8,525 acres, which was almost entirely due to stricter assessment of waste land used as private grazing grounds. Owing partly to this, partly to the fact that landholders refrained from applying for reduction of the assessment on fallow areas to the usual extent, and partly to the revision of the assessment on a number of waste land grants, the demand increased by Rs. 81,049. There was however little real extension of cultivation. In Kyaukpyu the abandonment of low-lying flooded paddy-land continued; there was some extension of cultivation and increase of revenue demand in Sandoway. The agricultural conditions were good throughout most of the Pegu Division, and comparatively little damage was done by floods. Cultivation was extended in every District, most markedly in Pegu, where the assessed area shows an increase of 18,431 acres. In Hanthawaddy the effect of the extension of cultivation on the revenue demand was counteracted by the assessment of a large area in the Twante Township at fallow rates; and the demand was less by Rs. 10,086 than that of 1915-16. In all the other Districts the demand rose, the total increase for the Division being Rs. 42,865. In the Irrawaddy Division, as in Pegu, the rainfall was generally timely and, except in Bassein, the planted crops suffered less than usual from floods. There was a considerable extension of cultivation, particularly in the Myaungmya and Pyapôn Districts, where there is still room for expansion towards the sea. The land revenue demand from these two Districts increased by Rs. 30,715 and Rs. 20,261, respectively. In Ma-ubin favourable conditions in the early part of the season resulted in considerable areas which are usually flooded being brought under cultivation; and although some damage was done by late floods in October and November, the demand shows a rise of Rs. 22,215. In Henzada there was some extension of cultivation, but a rise of Rs. 1·74 lakhs in the land revenue demand is ascribed for the most part to the introduction of revised rates following settlement in a large part of the District. Revised rates were introduced in a portion of the Bassein District also; and a further result of the recent settlement operations was revision of survey and recomputation of areas on a large scale, by which 22,599 acres were added to the assessed area. The demand increased by Rs. 30,210. The demand for the whole Division was Rs. 94·20 lakhs against Rs. 91·44 lakhs in 1915-16. The total demand for the Tenasserim Division shows an increase of Rs. 77,861 over that of the previous year, a considerable proportion of which was due to the introduction of revised rates in part of the Toungoo

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District. In all the Districts, however, there was some extension of cultivation, and Toungoo, Thatôn and Amherst enjoyed unusual freedom from floods. In Amherst and Tavoy an increase of the fallow area assessed at the two-anna rate counteracted the effect of extensions on the revenue demand. In the Magwe Division, in the Thayetmyo District the early rains were insufficient, and much paddy-land was unworked. *Ya* crops on the other hand did well, and the cultivation of cotton was stimulated by good prices obtained in the previous year. In Minbu, Pakôkku, and Magwe the agricultural conditions were fair, and each District showed an assessed area and a demand considerably larger than in 1915-16. The bulk, but not the whole, of an increase of Rs. 71,803 in the Magwe demand was due to the transfer of the Sale Township from Myingyan at the opening of the year. The total demand for the Division was higher by just over a lakh of rupees than that of the previous year. In the Mandalay Division, in the Mandalay District the season was fair, in spite of some damage by flood; and a considerable increase in the area under white beans, owing to the prospect of a strong European demand, resulted in an increase of Rs. 36,247 in the land revenue demand. In the other Districts of the Division there was some failure of the early rains, and the revenue was less than in the previous year, except in Bhamo, which showed a rise of a few thousands of rupees. In the Sagaing Division, in the Shwebo District the supply of irrigation water was late, and there was also deficiency of rainfall in the Shwebo and Kanbalu Subdivisions. The revenue demand was in consequence less by Rs. 16,654 than in the previous year. In the Chindwin Districts and in part of Sagaing, considerable damage was done by late floods from the Chindwin; but in the greater part of Sagaing and in the Lower Chindwin District the conditions were on the whole distinctly better than those of the preceding two years. The revenue demand in these two Districts was higher than in 1915-16 by Rs. 43,919 and Rs. 78,400 respectively, but rather more than half the apparent increase in Sagaing was due to a change in the date for assessment of *Mayin*, through which no assessment was made within the year 1915-16. As in Mandalay, the cultivation of white beans was considerably extended. The rainfall was on the whole good in the Meiktila Division and there was comparative freedom from floods. In each of the four Districts, if allowance be made for the transfer of the Sale Township from Myingyan to Magwe, the assessed area was considerably larger than in 1915-16, which was a poor year everywhere except in Kyauksè. During the year of report a further readjustment in Kyauksè of the portion of consolidated rates credited to the head of irrigation resulted in a small decrease in the land revenue demand, in spite of the extension of assessed area, but the increase in the demand in the other three Districts was sufficient to raise the total demand for the Division by two and a half lakhs of rupees. In the case of Myingyan the combined effect on the demand of the favourable season and the introduction of revised settlement rates more than counterbalanced the loss of the Sale Township.

The total amount of current land revenue remitted was Rs. 2·17 lakhs, against Rs. 5 lakhs in 1915-16 and Rs. 7·85 lakhs in 1914-15. The total amount remitted on account of the destruction of crops by floods was Rs. 1·41 lakhs or about two lakhs of rupees less than in 1915-16. Rupees 41,966 were remitted for this reason in Bassein, Rs. 39,000 in Ma-ubin, Rs. 20,994 in Yamèthin, Rs. 12,869 in Hanthawaddy, and Rs. 9,305 in Toungoo. In the case of Ma-ubin and Hanthawaddy these figures were much below those reported for several years; and the absence of heavy remissions in Insein was also noteworthy. The amount of revenue remitted as irrecoverable in Lower Burma, Rs. 39,794, was little more than half that returned for 1915-16. Erroneous assessment accounted for a total of Rs. 14,327, against Rs. 19,097 in the previous year.

The total collections of current land revenue, owing to the increased demand and the comparatively small amount remitted, was larger by twelve lakhs of rupees than in the previous year. Rupees 72,766 were outstanding at the end of the year, a larger sum than has been recorded for a number of years. This is possibly explained by the fact that towards the end of the year Township Officers were generally devoting their energies to urging the claims of the war loan, and that

consequently less attention than usual was given to the clearing up of revenue arrears. Thanks to the good harvest, the revenue was in most Districts paid without difficulty. The Districts of the Arakan Division, which did not share the favourable agricultural conditions enjoyed by the rest of the Province, were exceptions. In Kyaukpyu in particular there was distress owing to the destruction of crops by floods, storms, and rats, an epidemic of small-pox, and cattle-disease, in addition to the difficulties arising from war conditions. The amount outstanding at the end of the year in this District was Rs. 20,276, a large proportion of the Provincial total. Difficulty in collection was also experienced in Pegu, where Rs. 13,958 were outstanding. The sums outstanding in Upper Burma were generally revenue on *kaing* cultivation, which falls due in April.

Revenue proceedings and coercive processes.

13. The amount of revenue for the realization of which application was made for the issue of process was Rs. 11·89 lakhs or Rs. 2·88 lakhs less than in the previous year, although still considerably more than the usual amount in the years preceding the war. The amount realized was Rs. 9·61 lakhs or 80·8 per cent., against 84·4 per cent. in 1915-16. Movable property was sold in 813 cases, against 737 in the previous year; but the number of processes of every other kind was considerably smaller. Warrants of arrest were fewer by 26 per cent. and numbered 8,070, while the number of persons arrested decreased from 2,372 to 1,094, and the number of persons committed to jail from 102 to 53. Warrants of attachment of movable property decreased from 5,828 to 4,407. Warrants of attachment of immovable property fell from 15,315 to 10,702 and sales from 2,750 to 2,089. The Bassein District, with 1,442, had the largest number of arrests, and Kyaukpyu came second with 878, a number large in proportion to the demand.

Surveys.

Surveys by Imperial agency.

14. During the year of report topographical survey operations were continued by Parties No. 10 and 11 of the Survey of India in the Myitkyina, Mandalay, Kyauksè and Putao Districts of Upper Burma, in the Northern Shan States, and in the Mergui District of Lower Burma. An area of 6,089 square miles was surveyed partly on the half-inch, partly on the one-inch, and partly on the two-inch scale. Triangulation was also carried out in the Myitkyina and Putao Districts of Upper Burma and in the south of the Mergui District of Lower Burma, with a view to detail survey being extended to these Districts next season. Tidal operations were continued by No. 16 Survey Party at Rangoon and Moulmein. The tidal observatories were inspected and the tide-gauges were cleaned, adjusted and left in good working order. The Magnetic Observatory at Toungoo was visited by No. 18 Survey Party for the purpose of taking magnetic observations for the comparison of instruments.

Surveys by Provincial agency: extension and revision surveys.

15. During the year a Special Survey Staff continued to be employed for the demarcation and survey of wolfram areas in the Tenasserim Division. Altogether 11 areas were surveyed, of which 7 were situated in Tavoy and 4 in Mergui. The total length of the traverses run was 142 miles; but of this only 41 miles represents the actual length of boundary surveyed, the remainder being the amount of traverse lines necessary to fix geographically the situation of the areas leased. The total cost was Rs. 18,487. In the Thatôn District a special surveyor was appointed for the demarcation of certain areas on the Dawna range over which prospecting licenses for wolfram had been granted. The tract in which the range is situated is at present unsurveyed. Owing to boundary disputes due to the absence of proper maps, and also to passive obstruction on the part of the concessionaires, only one area just under a square mile in extent was finally demarcated at a cost of Rs. 316. In addition, the survey of one leased area measuring 2·60 square miles was completed at a cost of Rs. 508, but the accuracy of the survey by means of geographical connection remains to be assured. All revision surveys which cannot be undertaken in the normal course by the regular District staff are now as far as

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possible carried out by the Special Survey Party. This system is both more economical and more efficient than the old system of carrying out such surveys by casual temporary staff engaged by the local superintendents. The Special Survey Party, which is able to offer continuous employment, attracts a more highly qualified class of surveyors, and, working under expert supervision, its output of work is greater and is of a better quality. A large proportion of the party have now been trained to undertake both cadastral and traverse work. This is important, since the work of the party during the next few years will comprise, in addition to ordinary cadastral revision work, a large amount of traverse work in connection with the subdivision of unwieldy *kwins* and a good deal of topographical survey of areas set apart for colonization schemes. The mapping and other connected work relating to various revision surveys executed last year in the Bassein, Myaungmya, and Pyapôn Districts was completed at Insein during the recess. During the field season the Special Survey Party carried out traverse operations in 961 *kwins* spread over an area of 1,297 square miles in the Prome, Tharrawaddy, and Henzada Districts, partly in connection with the subdivision of unwieldy *kwins* into smaller units, and partly in connection with revision surveys which will be taken up next year. The necessary geographical connection was assured by verifactory azimuths taken to prove the work with the old work already azimuthally connected by the Survey of India Department. The party also completed the cadastral revision survey in Ma-ubin of 63 *kwins* comprising 37,546 acres of occupied area and in Henzada of 44 *kwins* with an area of 29,700 acres. The total expenditure was Rs. 64,007, the traverse operations costing Rs. 48,877 or Rs. 37-11-0 per square mile and the cadastral Rs. 15,130 or 3 annas and 7 pies per occupied acre,—low figures compared with previous years. A topographical survey, on a scale of 4 inches to the mile, of an area of 49 square miles in the Namyin Valley of the Myitkyina District, in which a scheme of colonization on co-operative lines is to be introduced, was successfully carried out by a small special staff under surveyors supplied from the Special Survey Party. The survey was geographically connected with Survey of India trigonometrical stations. The cost was Rs. 5,475 or nearly Rs. 112 per square mile.

Town and fishery surveys and surveys of leased areas.

16. No special demarcation and survey of Town Lands was undertaken during the year. In Yamèthin, a resurvey of the town of Pyawbwè was disposed of by the local staff, but as the original survey of this town, which was made in 1905-06, had been condemned as faulty, it is doubtful whether this resurvey can be accepted. In Rangoon Town the regular staff resurveyed 5,936 acres on the 100′ scale to bring the survey up to date. There was no survey of fisheries during the year. During the year the survey of *pattas* or grants was practically confined to the Amherst, Tavoy and Mergui Districts of the Tenasserim Division. In Amherst, 122 out of 126 applications received were disposed of, and of these 108 related to the survey of salt *pattas* comprising an area of 1,103 acres. The remainder were for the cultivation of rubber and the citronella plant. In Tavoy, out of 52 applications for the cultivation of rubber and miscellaneous gardens, 41 covering an area of 408 acres were disposed of. In Mergui, 304 applications, covering an area of 4,096 acres, had to be disposed of. Of this number, 231 cases covering an area of 2,886 acres were surveyed. With a view to prevent the delays in disposal hitherto so rife in this District, and to secure adequate check in future, the appointment of a special *patta* Inspector has been sanctioned for a period of six months each year. In all cases the establishments were paid on the contract or piece-work system.

Settlements.

Progress of Settlements.

17. Five settlement parties were engaged on settlement operations on the 1st July 1916; Nos. 1 and 4 Parties, which had completed the programme of work allotted to them, were disbanded on the 15th November 1916. No. 1 Party had been continuously in existence practically since 1879, when it was constituted as the first original settlement party under Mr. J. E. Bridges. No. 4 Party had been

in existence since 1890. With the sanction of the Local Government, special arrangements were made, by which employment was found for the members of the two parties who possessed good records, partly by absorption in the remaining settlement parties, and partly by appointment to the Land Records staff of various Districts. Thus at the close of the agricultural year ending on the 30th June 1917 there were only three settlement parties working in Burma.

During the year of report settlement operations were carried on in eight Districts and covered a gross area of 11,417 square miles with an occupied area of 3,759,000 acres. In four of these Districts, Sandoway, Kyaukpyu, Prome and Akyab, the field work had been completed before the beginning of the year and the work of the settlement parties in these Districts, covering a gross area under settlement of 4,788 square miles and an occupied area of 1,371,000 acres, was, during the year of report, confined to the compilation of statistics and the completion of the reports. The reclassification of the area irrigated by the Shwebo Canal in the Shwebo District was undertaken by a section of the disbanded No. 4 Party, and this work also was completed during the year. The total area reclassified consisted of 522 square miles with 207,000 occupied acres.

In the remaining three Districts in which settlement operations were carried on during the year, Magwe, Sagaing, and Myaungmya, soil-classification and connected operations were completed over a gross area of 2,368 square miles comprising an occupied area of 916,000 acres.

In addition to the above regular operations, the summary settlement of the disforested Kadonbaw Reserve in the Hanthawaddy District, was carried out by the colonization officer with a small staff. The total area dealt with was about 37 square miles with a cultivable area of 18,000 acres of which about 14,500 were at the time of settlement being worked by tenancy copartnership societies organised on co-operative lines.

Financial results of new settlements.

18. During the year of report, new settlements were sanctioned for portions of nine Districts, including three of the Districts (Sandoway, Kyaukpyu and Prome) in which the settlement operations had been completed in the course of the year. In the Myingyan District, including the Sale Township, which was transferred from Myingyan to Magwe with effect from the 1st July 1916, a new settlement affecting an area of 3,072 square miles with an occupied area of 1,123,192 acres, was sanctioned, whereby the total revenue demand will rise by 9·71 per cent., from Rs. 6·96 lakhs to Rs. 7·63 lakhs. By the new settlement of the Kawa Township of the Pegu District, affecting a total area of 306 square miles and an occupied area of 141,441 acres, the land revenue demand will rise by 11·80 per cent., from Rs. 4·27 lakhs to Rs. 4·77 lakhs. New rates sanctioned for the Pegu and Thanatpin Townships of the same District, with a total area of 799 square miles and an occupied area of 295,887 acres, will cause the land revenue to rise by 17·07 per cent., from Rs. 7·67 lakhs to Rs. 8·98 lakhs. The resettlement of the Hlègu Township of the Insein District, which has a total area of 316 square miles, with an occupied area of 119,711 acres, will increase the revenue demand by 8·98 per cent., from Rs. 2·80 lakhs to Rs. 3·05 lakhs. By the resettlement of the Tharrawaddy District, which has a total area of 1,285 square miles and an occupied area of 509,398 acres, the land revenue demand will rise by 19·17 per cent. from Rs. 11·96 lakhs to Rs. 14·25 lakhs. New rates sanctioned for the surveyed area of the Thayetmyo District, which has a total area of 1,378 square miles and an occupied area of 584,592 acres, will cause an increase of land revenue demand of 27·60 per cent., from Rs. 1·95 lakhs to Rs. 2·48 lakhs. In the Sandoway District, the first regular resettlement of a total area of 275 square miles with an occupied area of 64,782 acres will cause an increase of land revenue of 14·90 per cent., from Rs. 1·04 lakhs to Rs. 1·19 lakhs. In Kyaukpyu, new rates applied, also at the first regular settlement, to the total area of 843 square miles with an occupied area of 201,794 acres, will yield an increase in the land revenue demand of 15·41 per cent., from Rs. 2·86 lakhs to Rs. 3·30 lakhs. The resettlement of the Prome District, which has a total area of 1,720 square miles and an occupied area of 368,318 acres, will cause the land revenue demand to increase by 8·62 per cent., from Rs. 5·72 lakhs to Rs. 6·22 lakhs. In the Shwebo District, reclassification was effected of the area irrigated by the

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Shwebo Canal, which amounts to 207,000 acres. The result of reclassification and revision of rates will be an increase of 9·07 per cent. on the present demand of Rs. 8·27 lakhs. The total result of the new regular settlements will produce an enhancement of demand amounting to over Rs. 6½ lakhs, an increase of 14·72 per cent. Owing, however, to the application of intermediate rates, and to the fact that in certain portions of the Pegu, Insein and Tharrawaddy Districts the new rates do not come in force till July 1918 the immediate enhancement will be considerably less. The expenditure during the year of report of all the Settlement Parties at work during the year was Rs. 3·06 lakhs. For the settlements actually completed during the year the settlement operations cost Rs. 98 per square mile of the gross area, and about five annas per occupied area.

Land Records.

Area under supplementary survey.

19. During the year the area under supplementary survey fell by 980 square miles. A decrease of 115 square miles in Pakôkku is due to the separation and exclusion of forest reserves which had hitherto been included in the area nominally under supplementary survey. In the Lower Chindwin the area fell by 597 square miles owing to the introduction of lump sum assessment in 326 *kwins*. An increase of 310 square miles in Magwe and a corresponding decrease in Myingyan was due to the transfer of the Sale Township to Magwe. There was also a further decrease of 258 square miles in Myingyan owing to the introduction of lump sum assessments. Land revenue and cess in rural areas rose by Rs. 10·32 lakhs to Rs. 3,41·88 lakhs, the increase being due partly to the introduction of new settlements and partly to a better season in Upper Burma, where the revenue rose by over two lakhs of rupees in Meiktila and over a lakh of rupees in Yamèthin. The area under supplementary survey in towns rose by two square miles. In Akyab, an increase of three square miles is nominal, owing to a mistake in omitting one town from the list last year, while in Tharrawaddy a decrease of one square mile is due to the recomputation of areas. In other Districts the variations due to recomputation of areas were small and unimportant. Town land rolls have not yet been prepared for Kyauksè and Yamèthin, but will be taken in hand in 1917-18 on receipt of the printed copies of the 64-inch maps. The total land revenue, rent, and land rate from towns rose by Rs. 69,000 to nearly twelve and three-quarter lakhs of rupees. An increase in Rangoon Town of Rs. 57,352 was due to the assessment of a large number of homestead plots of over quarter of an acre formerly unassessed, and of four blocks in the old Cantonment area, to the issue of new leases, and to the detection of encroachments. The increases in other towns were due to enhancement of rents on the renewal of leases, and to the issue of new leases.

Cost of supplementary survey.

20. The total cost of supplementary survey was Rs. 15·57 lakhs, an increase of Rs. 7,638 over the year before. Superintendence and inspection cost Rs. 6,249 more and the subordinate field staff Rs. 6,040 more, but much of the latter increase is due to *taiksayès* coming on to the regular supplementary survey staff on the retirement of the circle thugyis. Contingent expenses everywhere were more closely watched and money spent on contingencies was less by Rs. 4,651. The cost of the District Land Records staff was 4·31 per cent. of the revenue assessed, a decline of ·11 per cent. for the year; this was due mainly to the better year in Upper Burma, where the percentage of cost to revenue in Meiktila and the Lower Chindwin fell by 4·65 and 2·68 respectively. The percentage of cost to revenue in Myaungmya 2·11 is the lowest in the Province.

Training of officers.

21. The number of Government Survey Schools continues at 18. The total number of pupils on the rolls on the 31st March 1917 was 236. During the year 140 scholarships of the value of Rs. 10 each, and tenable for one year, were allotted to deserving scholars and the cost of these stipends was Rs. 15,175. The total expenditure for the year amounted to Rs. 37,519 as against an income of Rs. 2,581. The net cost was therefore Rs. 34,938 and this works out to a cost of Rs. 150 per pupil for his techincal education, as against Rs. 90 ten

years ago. The results obtained at the Syndicate Examination were an improvement on the previous year; they were good for Revenue and fair for Arithmetic, but very poor again for Surveying. In Revenue the percentage of passes was 90, as against 80 in the previous year, and 68 the average of the five preceding years; in Arithmetic 82 per cent. were successful, as against 51 per cent. for the previous year, and 66 per cent. the average of five years; while in Surveying only 52 per cent. obtained passes, as against 43 per cent. in the previous year, and 64 per cent., the average of the past five years. The schools that did best in Surveying are Moulmein, Mônywa, Mandalay and Katha; while Pegu passed only one candidate and Kyaukpyu, Bassein, Henzada, Meiktila, Minbu and Pakôkku very few indeed. At present the whole course of instruction at these schools is under consideration. Two hundred and seventy-seven apprentices were under training during the year, 45 less than the year before. One hundred and thirty-one appeared for the test examination, and certificates of proficiency were issued to 100 who passed the test, and also to several men who had officiated as revenue-surveyors. Twenty-six were removed from the list for failure to pass or other reasons. The standard of the examination varies with the Superintendents of Land Records, but is generally satisfactory, and the standard required for survey is being steadily raised. Many of the apprentices who find it difficult to maintain themselves, work as chainmen to revenue-surveyors. Of certificate-holders 126 were appointed permanently and 193 temporarily to the staff. The prospects of a long apprenticeship without pay, and of further long periods in low grades, are not good enough to attract capable men and there is a natural falling off in numbers.

Transfers of land.

22. The area with reference to which statistics relating to the transfer of land were collected was 17,304,495 acres of occupied land in the year of report, as compared with 17,272,840 acres in the previous year. The area over which the statistics were collected showed a considerable decrease in the Myingyan and Magwe Districts, taken together, and in the Lower Chindwin District, due to the exclusion of the areas which have been placed under fixed assessment, and for which statistics are no longer recorded. The area sold during the year, 548,211 acres, was greater by 117,815 acres than in 1915-16. While the area mortgaged during the year, 570,905 acres, was less by 86,381 acres, the area redeemed, 320,265 acres, was greater by 89,549 acres than in the previous year. The total area under mortgage without possession, however, rose by 230,368 acres to 2,348,828 acres. The area transferred by sale was 3·2 per cent. of the whole area covered by the statistics as against 2·5 per cent. in the previous year. The area mortgaged during the year was 3·3 per cent. of the whole as against 3·8 per cent. in 1915-16, and the area redeemed was 1·9 per cent. of the whole as against 1·3 per cent. in the year before. The area of land under mortgage at the end of the year rose from 12·3 to 13·6 per cent. of the whole area covered by the statistics. Figures for Lower and Upper Burma show that the area sold was in Lower Burma 5·4 per cent. of the whole occupied area, as against 4·2 per cent. in 1915-16: in Upper Burma the area sold amounted to only ·56 per cent. of the whole area. The area mortgaged during the year in Lower Burma was 6 per cent. of the whole area, as against 7 per cent. in the previous year, and the total area under mortgage without possession at the end of the year was 24·4 per cent. as against 22·2 per cent. in the previous year. The total value of the land sold was Rs. 69 lakhs more, and of the land mortgaged during the year Rs. 34 lakhs less, than in 1915-16. The average acre value of the land sold was Rs. 61 as against Rs. 62 in 1915-16, while the mortgage-value remained the same. Of the area sold, 92 per cent. and of the area mortgaged without possession, 98 per cent., were in Lower Burma. Pegu, with 14,393 acres, showed the biggest increase in land sales, but seven other Districts had increases of over 7,500 acres and all Lower Burma Districts except Thayetmyo report increased sales. While few Districts show an increase in mortgaged areas, Myaungmya alone, with 5,784 acres, having an increase of more than 5,000 acres, there were notable decreases of 22,441 acres in Tharrawaddy and 19,464 acres in Akyab. The increase in the area of land redeemed was exceptionally high (30,490 acres) in Pyapôn, but

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increases of over 5,000 acres were also recorded in Pegu, Myaungmya, Tharrawaddy, Akyab, Hanthawaddy, Bassein, and Ma-ubin. Of the Districts in which sales of over 20,000 acres were recorded, five Districts show an increase in the average acre-value, the most marked increase over the previous year being in Amherst from Rs. 51 to Rs. 71 an acre: seven Districts on the other hand report smaller acre-values for land sold, the most notable being a fall in Toungoo from Rs. 71 to Rs. 46 and in Insein from Rs. 91 to Rs. 77. The variation from the previous year in mortgage values in the Districts in which over 20,000 acres were mortgaged during the year was small and showed no real upward or downward tendency. In Upper Burma only four Districts, Mandalay, Yamèthin, Shwebo, and Kyauksè, report sales of over 5,000 acres, and only Yamèthin had an area of over 10,000 acres under mortgage without possession at the end of the year. The most striking feature of the returns in Lower Burma is the great increase in the area of land sold. Though the paddy crop and the prices obtained by the cultivators were on the whole better than in 1915-16, the reports indicate that everywhere, except possibly in Amherst and Pyapôn, money was harder to obtain this year. Mortgagees were continually pressing for the return of their money and to satisfy their demands land had to be remortgaged or sold outright—in fact in Tharrawaddy it is said that redemption was a mere incident in the sale. Many of the sales recorded are in reality foreclosures on mortgages which mortgagors could not repay. In Akyab cultivators had either to sell their land outright to obtain funds or to register mortgages as sales, while in Hanthawaddy speculators had to surrender land for money formerly advanced on promissory notes which they could not repay. That the average acre value has declined so little is due to the fact that good land is still sought after as an investment by wealthy people, in spite of the increased unwillingness of the professional money-lender to lend on land security. Where, as in part of Tharrawaddy, a succession of bad seasons has prevented recuperation by the cultivators, the fall in prices has been marked, and only land under established cultivation and with an unassailable title has been accepted in mortgage. On mortgaged land there is generally a considerable margin in favour of the mortgagee, and had any great proportion of the sales been forced a fall in prices such as took place in Insein and Tharrawaddy might have been expected in all Districts. The increased population and the demand for land in Tavoy Town has naturally resulted in a rise of values in Tavoy. Against the general view as to the tightness of money and the demand for better security, it was reported from Pyapôn that the increase in the redeemed area was due to land being redeemed to be pledged again at lower rates of interest, and from Amherst that the financial situation was easier this year. In Upper Burma an increase in sales in Mandalay was due, partly to land being sold to pay debts, and partly to speculation in land for growing white beans. In Kyauksè a decrease in sales and an increase in redemptions were due to the good season which put the cultivator in a more satisfactory position. Generally, owing to the comparatively good harvest, the variations from last year were small, and there was no important rise or fall in values, apart from variations due to sales of valuable urban land.

Waste lands.

Grants and leases for cultivation.

23. The area of land granted or leased for cultivation rose from 5,830 acres in 1915-16 to 7,406 acres in the year of report, the increase being mainly due to more extensive issue of grants for rubber cultivation. In all 37 grants were issued, covering a total area of 4,240 acres. The only considerable areas granted in single cases were 1,180 acres in Thatôn, 701, 535, and 296 acres in Mergui, and 476 acres in Insein. If the total area of these five grants be excluded, the average size of the remaining grants issued was only 33 acres. In Mergui, 116 applications for grants were received during the year, covering a total area of 6,042 acres or an average of 52 acres. Grants or leases for ordinary paddy-cultivation continued to be issued only in special circumstances rendering the conferment of title desirable. An area of 133 acres of disforested land in Tharrawaddy was granted to a retired Burman police-officer for thecultivation of staples to be approved by the Director of

Agriculture, or of pure seed of improved varieties obtainable from the Government Farm at Hmawbi. In the Amherst District, 197 acres were leased for lemon grass cultivation, and in Ma-ubin 44 acres for the cultivation of *thinbin* (*Clinogyne dichotoma*), a species of rush used for the manufacture of mats. Most of the remaining grants or leases were for miscellaneous garden cultivation. Leases continued to be issued on the special lease area of Hanthawaddy and Insein.

Revenue-free grants of land and assignments of land revenue.

24. The area granted free of revenue for the erection of religious edifices decreased by 65 acres to 114 acres. In Mandalay 3·10 acres were granted for a Hindu temple. The total area granted free of revenue for public purposes was 33 acres against 39 in 1915-16. The largest area granted was one of 4·38 acres for a tank in Magwe. An area of 1·40 acres was granted for a municipal office at Pyinmana; 1·52 acres were granted for an Anglo-Vernacular Buddhist school at Minhla in the Tharrawaddy District, and a smaller area in connection with a Roman Catholic Mission school at Toungoo. The remainder of the total was made up of areas of a few acres in each case, granted for burial grounds, and of smaller areas for the construction of public rest-houses or wells. Only 287 acres, as against 384 in the previous year, were granted or leased as an appanage of the office of headman (*thugyisa* land). An area of 32 acres was leased in Pegu to one headman whose commission is inadequate. The other allotments were small. The addition to the total value of assignments of land revenue was Rs. 691, which is less by Rs. 111 than the corresponding amount in the previous year. There were no specially large assignments. The figures correspond generally to the areas newly granted as *thugyisa* land in Upper Burma, and granted free of revenue for religious and public purposes. An area of 6·46 acres in the Insein District was exempted from assessment to land revenue as the curtilage of a much frequented pagoda near Rangoon. A number of smaller areas were similarly exempted from revenue, without being granted, in Toungoo, Pyapôn and Tharrawaddy. The total value of the assignments of land revenue at the end of the year was Rs. 58,340 as against Rs. 57,649 at the end of 1915-16.

Government Estates and Wards' Estates.

25. The character of the land tenures in Burma is explained in paragraph 39 *et seq.* of the *Report on the Administration of Burma* for the year 1911-12. Apart from Government lands of the kind therein described, there are no Government estates in the special sense of particular cultivated areas managed by Government after the fashion of a private landlord. There are no wards' estates.

Revenue and Rent-paying Classes.

Area held by agriculturists.

26. Of the total occupied area for which statistics are recorded, 14,605,712 acres were occupied by agriculturists and 2,698,783 acres by non-agriculturists. The area occupied by agriculturists shows a decrease of 141,987 acres as compared with the previous year. The area held by resident non-agriculturists rose by 35,989 acres to 834,574 acres and the area held by non-resident non-agriculturists by 137,653 acres to 1,864,209 acres. The percentage of the whole area occupied by agriculturists was 84·4 per cent. as against 85·4 in 1915-16 and 85·3 in 1914-15. In Lower Burma, including Thayetmyo, agriculturists occupied 7,281,499 acres, or 77 per cent., and non-agriculturists 2,130,386 acres, or 23 per cent., of the whole occupied area. All but four Districts in Lower Burma report a smaller percentage occupied by agriculturists than in the previous year. Non-agriculturists now hold 43 per cent. of the whole occupied area in Hanthawaddy, 34 per cent. in Pyapôn, 32 per cent. in Insein, 31 per cent. in Ma-ubin, 28 per cent. in Toungoo, and 27 per cent. in Pegu. The increase in the areas held by non-resident non-agriculturists in Lower Burma is striking, no less than 11 out of 19 Districts reporting increases of over 8,000 acres in the areas so held, while only two Districts report similar increases in the areas held by resident non-agriculturists. In Upper Burma excluding Thayetmyo agriculturists occupied 7,324,213

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acres or 92·8 per cent. and non-agriculturists 568,397 acres or 7·2 per cent. The percentage of the area held by non-agriculturists is above 10 per cent. only in Minbu, Mandalay, and the Upper and Lower Chindwin Districts.

Tenancies.

27. The area let at full rents rose by 197,604 acres to 3,351,219 acres, Akyab, Insein, Pegu and Ma-ubin showing increases of over 20,000 acres: of this area 3,256,991 acres or 97 per cent. were in Lower Burma. If all the land owned by non-agriculturists in Lower Burma was let, 1,126,605 acres must have been let by owners classed as agriculturists. The marked excess of the areas let at full rents over the areas held by non-agriculturists in Akyab, Tharrawaddy, Pegu, Bassein, Henzada and Myaungmya, as compared with other Lower Burma Districts indicates the existence of a large body of owners who cultivate part and let part of their land. The area let at full rents has reached more that half of the whole occupied area in Hanthawaddy, nearly half in Pegu, and well over a third in Akyab, Insein, Tharrawaddy, Bassein, Myaungmya, Ma-ubin and Pyapôn. The total amount of rent paid rose by Rs. 43 lakhs to Rs. 431 lakhs, the total amount paid in Lower and Upper Burma respectively being in the same proportion as the area rented. The rent roll was largest in Hanthawaddy (Rs. 66 lakhs), Pegu (Rs. 50 lakhs), Myaungmya (Rs. 47 lakhs), and Pyapôn (Rs. 44 lakhs). A fair season in 1915-16, and the anticipation of good prices after the recovery of the rice market, resulted in rents in Lower Burma either remaining at a steady level or being slightly enhanced. Out of thirteen Lower Burma Districts in which the total amount of rent paid was over Rs. 10 lakhs, the average acre-rent rose in five Districts, remained stationary in seven, and fell in one. The average rent in money value rose from Rs. 12·3 an acre in 1915-16 to Rs. 12·9 an acre, but this is due mainly to the higher prices at which the rents paid in kind were commuted. During the year the number of tenants who had rented the same land continuously for five years or more rose by 3,521 to 30,673, or 14 per cent. of the total number of tenants. Continuity of tenure is most common in Akyab, Hanthawaddy and Henzada, and most uncommon in Tharrawaddy, Pegu and Bassein. From Bassein it was reported that increasing numbers of tenants who were a short time ago independent owners of the holdings which they cultivate, receive no privileged treatment in the matter of rent. From Bassein it was also reported that fallowed areas are increasing each year in consequence of the landlord's demands. In Myaungmya tenants continuously working the same land are decreasing, and are being replaced by a class who, while nominally tenants, are really labourers working under contracts which reserve the bulk of the produce to the landlord. In Minbu, the last of the landlords in the Môn Canal tract who had stood out for years against the acceptance of reasonable rents gave way and let their lands. The District reports generally afford very little evidence of any considerable oppression or rack-renting by the landlords.

CHAPTER III.

PROTECTION.

REFERENCES—

Report on the Police Administration of Burma for the year 1916.
Report on the Rangoon Town Police for the year 1916.
Resolution on the Reports on Village Administration in Burma for the year 1916.
Returns showing the measures adopted for the extermination of Wild Animals and Poisonous Snakes in Burma for the year 1916.
Reports on the Administration of Criminal Justice in Burma for the year 1916.
Report on the Prison Administration of Burma for the year 1916.
Reports on the Administration of Civil Justice in Burma for the year 1916.
Report on the Working of the Registration Department in Burma for the three years 1914 to 1916.
Report on the Working of the Indian Companies Act in Burma for the year 1916-17.
Report on the Working of the Rangoon Municipality for the year 1916-17.
Resolution reviewing the Reports on the Working of Municipal Committees in Burma (except Rangoon) during the year 1916-17.
Administration Report of the Public Works Department, Burma, Buildings and Roads Branch, for the year 1916-17.
Administration Report of the Commissioners for the Port of Rangoon for the year 1916-17.
Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the official year 1916-17, Part III, Shipping.
Report on the Maritime Trade and Customs Administration of Burma for the official year 1916-17.
Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volume II.
Annual Statement of Coasting Trade and Navigation of British India.
Statistical Abstract for British India, Volumes I, III and IV.
Report on Government Steamers, Vessels and Launches in Burma for the year 1916-17.

Legislative Authority.

The history and constitution of the Legislative Authority of the Province are described in paragraphs 103 to 106 of the *Report on the Administration of Burma* for the year 1911-12.

Course of Legislation.

Work of Legislative Council.

28. The two Bills referred to in the report of the preceding year, *viz.*, the Burma Prohibition of Inoculation and Licensing of Vaccinators Amendment Bill and the Burma Ferries Amendment Bill passed into law as Burma Acts Nos. I and II of 1916 during the year of report. Five Bills were introduced into Council during the year, *viz.*, the Burma Excise Bill, 1916, the Burma Salt Bill, 1916, the Burma Water Hyacinth Bill, 1916, the Burma Towns Amendment Bill, 1916, and the Rangoon Hackney Carriages Bill, 1916. Of these five Bills the Burma Water Hyacinth Bill and the Burma Salt Bill became law as Burma Acts Nos. I and II of 1917 respectively during the year but the rest did not become law till after the close of the year of report.

The Burma Prohibition of Inoculation and Licensing of Vaccinators Amendment Act (No. I of 1916) amends the Burma Prohibition of Inoculation and Licensing of Vaccinators Act, 1908, so as to make it an offence in any specified area for a person to produce or attempt to produce the disease of small-pox in any person, not only by inoculation but also by exposure to variolous matter or by any means whatsover.

The Burma Ferries Amendment Act (No. II of 1916) amends the Burma Ferries Act, 1898, so as expressly to prohibit isolated instances of conveying for hire without due authority within the limits of a public ferry, as well as the

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working of an unauthorized ferry. The Act also empowers Government to vest the superintendence of public ferries within the Port of Rangoon in the Commissioners for the Port.

The Burma Water Hyacinth Act (No. I of 1917) is a measure enacted to prohibit the possession of an aquatic plant called the water hyacinth and to require every owner or occupier of land under penalty to destroy the plant growing on his land. The Act empowers the Township Officers and Government Officers of higher rank to authorize persons to enter on any land and to destroy the plant found therein, if the owner or occupier of the land cannot be found, or if he neglects to destroy the plant. It declares the presence of the plant in the Province a public nuisance and imposes a legal obligation on village headmen and villagers, and on ward headmen and the residents of towns, to co-operate in the task of destroying the plant. In the case of the Province being menaced by a similar pest in future, the Local Government, subject to the previous sanction of the Governor-General in Council, is empowered to apply the provisions of the Act to the Province.

The Burma Salt Act (No. II of 1917) was enacted with the object of providing more effectively for the regulation of the local manufacture of salt in the Province. Such manufacture has been controlled hitherto by the Indian Salt Act, 1882, and by Rules issued under the Lower Burma Land and Revenue Act, 1876, and the Upper Burma Land and Revenue Regulation, 1889. The Indian Act was not framed to meet the conditions under which the manufacture of salt is carried on in Burma, and, apart from the inconvenience which results from the administration of the Salt Department under three separate enactments, the Rules which can be framed under the Land Revenue law are not sufficiently wide to meet present requirements. The Burma Act embodies the whole of the law relating to local manufacture of salt, and makes provision for the regulation of such manufacture and for offences against the Salt law.

General Acts affecting Burma.

29. The undermentioned General Acts affecting Burma were passed by the Governor-General in Council during the year:—

General Acts of 1916.

X.—The Enemy Trading Act, 1916.
XI.—The Import and Export of Goods Act, 1916.
XII.—The Indian Lunacy (Amendment) Act, 1916.
XIII.—The Amending Act, 1916.
XIV.—The Indian Bills of Exchange Act, 1916.
XV.—The Hindu Disposition of Property Act, 1916.

General Acts of 1917.

I.—The Inland Steam-vessels Act, 1917.
II.—The Motor Spirit (Duties) Act, 1917.
III.—The Indian Defence Force Act, 1917.
IV.—The Indian Army (Suspension of Sentences) Act, 1917.
V.—The Destruction of Records Act, 1917.
VI.—The Indian Tariff (Amendment) Act, 1917.
VII.—The Indian Income-tax (Amendment) Act, 1917.
VIII.—The Super-tax Act, 1917.
IX.—The Indian Bills of Exchange (Amendment) Act, 1917.
X.—The Indian Army (Amendment) Act, 1917.
XI.—The Indian Paper Currency (Temporary Amendment) Act, 1917.
XIII.—The Freight (Railway and Inland Steam-vessel) Tax Act, 1917.
XIV.—The Prevention of Cruelty to Animals (Amendment) Act, 1917.

Ordinances of the Governor-General.

The undermentioned Ordinances affecting Burma were made and promulgated by the Governor-General under section 72 of the Government of India Act, 1915.

Ordinances of 1916.

IV.—The Import and Export of Goods Ordinance, 1916.

V.—The Enemy Trading Ordinance, 1916.

VI.—The Indian Paper Currency (Further Amendment) Ordinance, 1916.

VII.—The Second Indian Paper Currency (Further Amendment) Ordinance, 1916.

VIII.—The Indian Legislative Council (Elections Inquiries) Ordinance, 1916.

Ordinance of 1917.

I.—The Registration Ordinance, 1917.

All these Acts and Ordinances came fully into force during the year with the exception of the Inland Steam-vessels Act, 1917, and the Freight (Railway and Inland Steam-vessel) Tax Act, 1917, both of which did not come into operation until the 1st June 1917 and the 1st April 1917, respectively, *i.e.*, after the close of the year of report. Ordinance No. IV of 1916 was repealed and re-enacted by Act No. XI of 1916 and Ordinance No. V of 1916 by Act No. X of 1916, and Ordinance No. VI of 1916 by Ordinance No. VII of 1916 which in turn was repealed and re-enacted by Act No. XI of 1917.

Regulations affecting Burma.

30. No Regulations affecting Burma were enacted during the year.

Extension of enactments to Shan States.

31. The Marriage Validation Act, 1892, the Registration Ordinance, 1917, and the Import and Export of Goods Act, 1916, were extended to all the Shan States and the Burma Steam-boilers and Prime-movers Act, 1910, was extended to all the Northern Shan States except the State of Manglün.

Police.

Civil Police: strength, recruitment and cost.

32. Excluding gazetted officers and the Rangoon Town Police, the sanctioned strength of the Civil Police force at the end of 1916 was 1,363 officers and 14,378 men, 1 Deputy Superintendent, 1 sub-inspector, 3 head constables and 18 constables having been added during the year. The actual strength at the close of the year fell short of the sanctioned strength by 42 officers and 590 men, as compared with 48 officers and 751 men twelve months earlier. Ten District Superintendents, 1 Assistant Superintendent, 2 inspectors, 4 sergeants and 2 sub-inspectors of police were out of the Province on military duty. The shortage of men is chiefly confined to Lower Burma Districts. The reduction in the shortage is attributable to better recruiting owing to temporary poverty and scarcity of employment. The shortage of officers, as in the previous year, was chiefly due to the number of cadets undergoing training at the Provincial Training School being much under the sanctioned number. The cost of the Police payable from Imperial and Provincial revenues increased from Rs. 62 lakhs in 1915 to Rs. 62·76 lakhs in the year of report. The increase is chiefly due to an increase of establishment in Tavoy, to temporary additions to the Criminal Investigation Department and in certain Districts in Upper Burma to replace the military police who proceeded on active service. Slightly more was spent in travelling allowance and in secret service money than in the previous year, but there was a considerable decrease in the amount spent on the upkeep of buildings, and on rewards to informers. The cost of the police paid otherwise than from Imperial or Provincial revenues was Rs. 1,83,139 as compared with Rs. 1,86,563 in 1915. The decrease is mainly due to less money having been spent by the Railway Police. The cost of additional police employed under section 15, Act V of 1861 was Rs. 2,46,771 in 1916 as against Rs. 3,00,554 in 1915. The decrease of Rs. 53,783 is due to the disbandment of the additional forces in the Henzada, Sagaing and Shwebo Districts and to the exercise of strict economy in the other Districts concerned.

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33. During the year 293 officers and 1,664 men were punished departmentally, an increase of 12 and a decrease of 65 respectively on the corresponding figures for 1915. Fourteen officers and 523 men were dismissed or removed, as against 17 officers and 452 men in the previous year. The number of officers and men who were punished magisterially was 6 and 305 respectively, of whom 4 officers and 266 men were dismissed as a result of conviction. The system of selecting cadet sub-inspectors of police by Divisional Committees is having satisfactory results, as the number of punishments imposed on officers who had passed through the Training School was considerably fewer in proportion than the number imposed on officers who had risen from the ranks. The number of offences committed by members of the police force in the execution of their duty was greater than in the previous year, there being 8 cases of violence to persons, 5 cases of wrongful confinement, and 2 cases of wrongful behaviour. In all 5 sub-inspectors, 2 head constables and 15 constables were involved. In all cases suitable punishments were awarded and, when necessary, published abroad *pour encourager les autres*. The number of desertions fell from 156 to 128, resignations without pension from 987 to 948 while dismissals and discharges rose from 664 to 747. There was an increase in the number of special promotions for good work, which rose from 46 to 55. The number of rewards granted, however, decreased from 2,856 to 2,734, financial stringency compelling resort to this doubtful economy. The King's Police Medal was granted to 5 officers during the year. In the District depôts the number of recruits under training was 2,348. Of a total number of 1,511 who appeared for examination, 1,452 passed. The number of casualties before the completion of the course was 367, and 18 recruits were discharged for failure to pass. Owing to the men being required for other duties, in some Districts, there was no retraining of the old constables, and in several Districts the training depôts were open for only six months. A total number of 1,059 officers went through a course of revolver practice. Eight thousand nine hundred and sixty-four men and 1,512 recruits were put through the annual course of musketry and the figure of merit obtained was 63, which is slightly lower than in 1915. Want of ammunition caused both revolver practice and musketry to be curtailed in some Districts. Classes of instruction in first aid to the injured were held in all Districts except 8, and 218 officers and men became entitled to wear the badge of the St. John Ambulance Association. The number of literate subordinate officers and men was 86 per cent. of the total number, the same as in the previous year. At the Provincial Police Training School at Mandalay there were no Assistant or Deputy Superintendents of Police in residence. Two cadet inspectors, 51 cadet sub-inspectors, and 6 sub-inspectors of Excise were posted to the school. Three cadet sub-inspectors resigned during the year. The two cadet inspectors and 49 cadet sub-inspectors appeared for the final examination, of whom 12 sub-inspectors failed to pass the required standard and remained on for a further year's training at their own expense.

Conduct, education and training.

Buildings.

34. A sum of Rs. 2·13 lakhs was provided in the Budget of 1915-16 for Civil Police buildings, and a further sum of one lakh of rupees under the head "Petty Construction and Repairs." Eight police-stations and a number of quarters were completed during the year. A sum of Rs. 82,560 was expended during the year on hiring quarters for men for whom no Government quarters were available.

Crime.

35. The total number of true cognizable cases dealt with by the Police and by the Courts during 1916 was 47,904 an increase of 2,837, or 6 per cent., over the previous year's figures, which themselves constituted a record. The increase in crime is attributable to unfavourable economic conditions caused by the war, to the dulness of trade, the want of work and the increased cost of living, especially in towns. The number of offences against the State, *viz.*, 473 is practically the same as in 1915. The number of serious offences against the person is actually less, being 5,097 as against 5,178 in the previous year. The decrease is due to there being fewer cases of simple and grievous hurt. Cases of

murder and rape increased. The number of serious offences against person and property, or against property only was 6,354, an increase of 365, mainly due to offences under the house-breaking sections having risen from 4,425 to 4,753. Minor offences against property increased by 873 to 19,131, the increase being most marked in cattle-theft and ordinary theft. The number of cases of public nuisance increased by 856 and cases under special and local laws by 897. The Districts with the most marked increases were Insein, Tharrawaddy, Myaungmya, Pyapôn, Meiktila and Pakôkku. In Prome the number of dacoities rose by 11 and in Tharrawaddy cattle-theft cases rose by 112. The only Districts showing a decrease in all classes of crime were Henzada, Ma-ubin, Myingyan and Thatôn. In Tavoy, where conditions were exceptional owing to the development of the mining industry and the consequent influx of population, crime continued to increase. The total number of cases throughout the Province reported to be due to drink was 959 including 68 murders, 15 robberies and 485 cases of grievous hurt. The total number of violent crimes rose from 1,431 in 1915 to 1,466. Tharrawaddy with 40, Insein with 24 cases, Mergui with 15, and Ma-ubin with 10 cases more than in 1915 show the largest increases in Lower Burma. In Upper Burma, Magwe had 17, Minbu 11, and Lower Chindwin 9 cases more than in the previous year. The principal decreases are Pegu with 22, Yamèthin with 18, Bassein with 13, and Pyapôn with 10 cases fewer than in 1915. Firearms were used in 125 cases as against 150 in the previous year. As a result of the breaking up of armed gangs there was a decrease of 29 cases in the Amherst District, which nevertheless still heads the list with 21 cases. Throughout the Province firearms were used in 89 dacoities and 23 robberies. Four hundred and eighty-five murders were dealt with by the police, as against 473 in 1915. Tharrawaddy, with 52, had the largest number, but there were 30 or more in Henzada, Pegu and Prome. There was a drop in Hanthawaddy from 14 in 1915 to 4 in 1916. There were in all 79 cases of attempt to murder. The majority of the cases of murder are due to the usual motives, drink, passion, and revenge. There were 93 true cases of culpable homicide not amounting to murder. The number of dacoities again increased and this year the total number was 215, which is the highest figure for a great number of years. The Divisions responsible for the increase are Pegu with 70 cases against 47 in 1915, and Magwe with 26 cases as against 10. Tharrawaddy, Prome, Henzada, Bassein and Insein Districts had between them 98 cases of dacoity. The number of robberies did not increase appreciably, being 485 as against 488 in the previous. There were increases in Insein, Bassein, Thatôn, and Thayetmyo and decreases in Kyaukpyu, Pegu, Myaungmya, Pyapôn, Amherst, Toungoo, Mandalay, and Yamèthin. The number of cases of house-breaking falling under sections 458—460 of the Indian Penal Code increased by 20 to 107. Other cases of house-breaking and house-trespass increased from 2,965 to 3,254. The increase was fairly general in all Districts, though there were decreases of 60 in Prome, of 42 in Bassein, of 39 in Tavoy, and of 25 in Toungoo. Tharrawaddy had the largest number of cases, 328, and also the largest increase, 75. Other heavy increases were in Myaungmya with 63, Pyapôn with 46, Akyab with 40, Thatôn with 35, and Kyauksè with 34. True cases of cattle-theft rose from 3,008 in 1915 to 3,348. Tharrawaddy had 546 cases, 112 more than in the previous year, Prome had 314, Bassein 298, Insein 253 and Pegu, Henzada and Toungoo each over 150. The number of true cases of ordinary theft was 12,538 or 596 more than in 1915. Myaungmya and Insein had the largest increases with 132 and 115 respectively. The largest decreases were in Tharrawaddy with 188 and Thatôn with 107. The increase in the number of thefts is attributed to the increased cost of living caused by the war.

Working of the Police.

36. Excluding cases classed as "false" or "mistaken," the number of cases finally dealt with by the police during the year was 40,262, an increase of 1,408 over the corresponding figure for the previous year. Of these cases convictions were obtained in 26,725 cases, or 66 per cent., which percentage is the same as in 1915. Excluding minor offences, and omitting cases which were compounded or in which the accused died, etc. 26,915 true cases were dealt with, of which 14,951, or 56 per cent., resulted in conviction, 2,895 in the acquittal or discharge of the

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person or persons accused, while 9,069 were undetected. Of the cases sent up for trial 84 per cent. resulted in convictions. The number of persons dealt with under all classes of offences was 56,412, of whom 52,748 were brought to trial and 34,246 convicted. The results are somewhat better than in the previous year. Omitting those involved in minor offences, 34,669 persons were tried and 19,585 convicted. In this respect the results are the same as in the two previous years. The police refused investigation in a total number of 2,209 offences reported, as against a total number of 1,784 in the previous year. The falling off in successful detection of violent crime that had marked the previous year was continued in 1916, when conviction resulted in 582 cases involving 914 persons, of a total number of 914 cases involving 1,989 persons, sent up for trial. Thus 37 per cent. of the 2,495 persons dealt with, and 46 per cent. of those sent up for trial, were convicted. In murder cases the percentage of conviction to the total number of cases dealt with, and sent up for trial were 31 and 54 per cent. respectively, which is a falling-off from the standard of the previous year when the corresponding figures were 37 and 60. In dacoity cases only 27 per cent. of the cases dealt with, and 50 per cent. of the cases sent up for trial, resulted in conviction. The corresponding percentages for robbery cases were 44 and 69, again a poorer result than in the previous year. Cases of the aggravated forms of house-breaking resulted in convictions in 36 per cent. of the true reported cases, as against 40 per cent. in 1915. In the less serious forms of house-breaking, 35 per cent. of the cases dealt with ended in conviction. During the year cattle to the value of Rs. 3·32 lakhs were stolen and the value of those recovered was Rs. 2·09 lakhs. The value of property stolen was returned as Rs. 5·69 lakhs and that of property recovered was Rs. 1·44 lakhs.

Important incidents.

37. The most important case dealt with during the year was one in which 4 persons were charged with and convicted of conspiracy under sections 121 and 121A of the Indian Penal Code and Rule 25 of the Defence of India (Consolidation) Rules. Otherwise the tale of the crime of the year contains no case of real importance to anyone other than the parties immediately concerned. The following cases have some human interest. In Insein District a head constable and a party of villagers had a brush with two men suspected of cattle-theft. One of the men was captured and a villager was seriously injured. Arrangements were made to send the prisoner and the injured villager into the police-station and they started off accompanied by a head constable and two constables. On the way the party was attacked by ten men armed with guns. The prisoner was released and the wounded villager's throat was cut, after which the party decamped. The case was never detected. In Tharrawaddy a small boy was kidnapped and a ransom of Rs. 200 was demanded. The body of the boy was found in a well. Four men were sent up for trial and one was convicted and sentenced to death. A brutal robbery with murder was committed in Henzada District, where four men murdered a girl for her jewellery and killed her father also. The case remained undetected. In Ma-ubin two women with children in their arms were suddenly attacked by a man with a billet of wood. One of the women was killed, the other was chased and escaped but not before the child had been injured. The murderer was sentenced to death. The motive of the crime is supposed to have been revenge. In Amherst District a noteworthy case was the murder of Mr. McCalder, an Assistant of a Rubber Plantation Company, who was shot dead one night while seated at dinner. Investigation showed that the ostensible motive of the crime lay in the dismissal of a man for mismanagement and fraud, much of the information regarding which had been conveyed to the Directors by the deceased McCalder. One man was sent up for trial but the case resulted in an acquittal, although every effort was made to bring the case to light. A case of murder by poison occurred in Pakôkku District when a Sub-Inspector of Police was investigating a case. After eating some food prepared in a village various persons, including the Sub-Inspector and a small child, were taken violently ill. The child died and arsenic was found in its stomach. A man was sent up for trial but was acquitted for lack of evidence. Two cases from the Lower Chindwin District may be mentioned. In the first case the village headman of Paungwa was murdered within 50 yards of

the village gate. The headman had been energetically keeping order in a *pwè*, preventing gambling and the sale of liquor. There was no doubt that he was murdered by some of the gamblers whom he had reported, but it was impossible to obtain sufficient evidence. In the other case a boy of seventeen murdered a little boy for the sake of his ornaments, which were of small value. He was acquitted for lack of evidence. The Superintendent of Police reports that this is the third case of child murder committed by this boy. The first occurred in 1913 and was undetected. The second occurred in 1915 and the third in 1916. In all these cases the children were murdered in the same way. They were given sweets and pice to allay their suspicions, and were then taken to a lonely place on the riverside where they were drowned and their ornaments removed. In the last case some of the ornaments were traced in a pawn-shop, but the finger-prints had been so badly taken that nothing could be made of them. In the Prome District several new gangs of dacoits were discovered. It was found that one gang under the leadership of a man named Nga San Gyaw had been engaged in dacoity ever since 1911. The gang possessed a double-barrel gun, a Webley revolver and a small Winchester rifle, together with several guns of local manufacture. The movements of this gang were followed for some time without success until the 13th May 1916, when the police surprised them when attacking the village of Ywatha, killed two of their members and captured the leader Nga San Gyaw. Previous to this the police had laid in wait for the gang on no less than thirteen occasions. In another case two men belonging to the above gang or an off-shoot of it were killed and a third man was captured and sentenced to six years' imprisonment. In Henzada, the District Superintendent of Police, while on tour, received news of a dacoity in which twelve men armed with three locally made guns, *dahs* and spears were concerned. Armed with a gun and a revolver and accompanied by his Reader, he immediately started for the village which was a mile and a half away. He found a dacoity in progress and, immediately and unsupported, attacked the gang. He succeeded in wounding several of the dacoits and putting the gang to flight. As the dacoits were making their escape, they were attacked by the headman and some villagers, and the headman was killed. Eleven men were arrested in this case and ten were convicted. This gang was responsible for several other dacoities in the Bassein District. In the Ma-ubin District a very brave resistance was offered to a gang of dacoits by two girls and two men. The men kept the dacoits at bay with their bows and arrows, although their shooting does not appear to have been very accurate. One of the girls resisted by throwing bottles at the enemy, while the other one beat the gong for assistance, which eventually arrived. All this time the gang was firing into the house. The case remained undetected, but the victims were suitably rewarded. The same District reports that a widower, in the hopes of obtaining a young and pretty wife, falsely gave out that he possessed a large sum of money. He was consequently attacked by three absconding dacoits from the Bassein District. The Minbu Police succeeded in breaking up a gang of dacoits which had been harrying the Magwe Division. In a dacoity reported, property to the value of Rs. 8,500 had been stolen. On receipt of information the police proceeded to an island on the Irrawaddy and surrounded several huts. Two men were arrested, one of whom was wanted for breaking out of the Magwe Jail in 1915. A certain amount of the dacoited property was found on their persons. After a search lasting for two days, two guns, a Winchester repeating rifle, and a repeating shot-gun which had been stolen earlier in the year, were found buried nearly two miles from the huts where the dacoits were originally arrested. Three men were convicted, and one was acquitted. Splendid pluck was shown by a woman in the Insein District who personally set upon a man who was committing robbery on her brother. A daring robbery occurred in Prome Town in which three burglars armed with a revolver entered a house. The police arrived on the scene while the robbery was in progress, and succeeded in capturing two of the men after the third had been killed. The revolver unfortunately was not secured as one of the men escaped with it before he was captured. The majority of the robberies committed in the Delta were boat robberies, and a very important gang under Nga Yo—whose operations extended from Yandoon to Mandalay, was broken up by the Ma-ubin Police. The

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gang committed a robbery on a mail steamer one night at Danubyu and had made a haul of Rs. 700, when they were seen by one of the steamer's lascars, who in attempting to catch one of them was wounded. Two men were arrested and one was convicted. Nga Yo escaped but was eventually traced in Hanthawaddy District where he was arrested by a Sub-Inspector from the Ma-ubin District.

Offences under special Acts.

38. The number of true cases dealt with under the Excise Act rose from 5,874 in 1915 to 6,575 in the year of report. The number of cases instituted by the Police was 1,855 or 162 more than in the previous year. The number of cases brought to trial was 6,516 of which 5,712, or 88 per cent., resulted in conviction. Eight thousand and five persons were dealt with, and 7,871 were tried, of whom 6,175 or 78 per cent. were convicted. The percentages of conviction are practically the same as in the previous year. In Minbu a very large seizure of 15,085 tolas of ganja was made by a village headman. Other large seizures in a single case were of 4,260 tolas at Tharrawaddy, of 4,588 tolas at Meiktila. The largest seizure of cocaine occurred in Bassein where 8,160 grains were taken at one haul. A seizure of 6,600 grains occurred in Yamèthin, and one of 3,360 grains in Toungoo. Offences under the Opium Act decreased, the number of true cases dealt with being 2,072, as against 2,230 in 1915. Cases sent to trial numbered 2,026 of which 1,961, or 97 per cent., resulted in conviction. A total number of 2,624 persons were dealt with, 2,516 were brought to trial, and 2,064 convicted. There were 235 prosecutions under the Burma Opium Law Amendment Act, some 31 fewer than in the previous year. There were 144 convictions. Under the Gambling Act there were 3,745 cases, of which the number brought to trial was 3,680, conviction resulting in 2,823 cases. In all 27,954 persons were dealt with, of whom 26,525 were brought to trial, of whom again 14,162 were convicted. Thus 51 per cent. of the people dealt with were convicted. In Tharrawaddy, Prome, Pyapôn, and Mandalay over 84 per cent. of the cases dealt with resulted in conviction. Much less success was gained in some other Districts, the percentage of individual convictions to the total number of persons dealt with being 21 in Tavoy, 30 in Insein, 33 in Pegu, and 36 in Myaungmya. Under section 17 of the Gambling Act there were 199 prosecutions against persons alleged to be habitual gamblers and 156 convictions resulted. The Lower Chindwin District accounts for one-third of the total number of convictions in the Province. In Bassein 4 of a total number of 7 Chinese clubs were closed down, mainly owing to their having been centres for gambling. The closing down of the Chinese clubs in Rangoon led to large numbers of gamblers emigrating to Tavoy. Eight habitual Chinese gamblers were deported from that District. There were 644 prosecutions under the Arms Act, of which 610, or 95 per cent., resulted in conviction. Eight hundred and seven persons were sent for trial, of whom 634 or 79 per cent. were convicted. Tharrawaddy, Henzada, and Toungoo had the largest number of cases. The number of firearms seized during the year was 92, or 20 fewer than in the previous year. But the number of weapons voluntarily surrendered rose from 113 to 400, largely as a result of a successful effort made in the Akyab and Amherst Districts to induce the surrender of unlicensed guns.

Non-cognizable crime.

39. There was a decrease of 201 in the number of true cases of non-cognizable crime, 38,163 cases being dealt with. Conviction resulted in 27,232 cases, or 71 per cent. of the total number dealt with. The decrease is entirely due to a drop in the number of minor offences, as there was a slight increase in the more serious forms of crime.

Preventive sections, surveillance and identification.

40. Two thousand one hundred and sixty-five persons were brought before the Courts under the preventive sections of the Code of Criminal Procedure and 1,845 or 85 per cent. were called on to furnish security. In the previous year 1,886 persons were required to furnish security out of a total number of 2,295 persons proceeded against. In the year of report there was increased activity in Insein, Prome, Bassein, Amherst, Tavoy, Pakôkku, Mandalay and Kyauksè. In Thatôn the number of prosecutions fell by 131, while there was a total decrease of 276 cases in the three Districts forming the Myaungmya Sessions Division. At the end

of 1915 the Police had on their registers the names of 10,741 persons under surveillance and of 134 prisoners conditionally released. The corresponding figures at the end of 1916 were 9,125 and 263. During the year 3,385 names were added to the surveillance registers, and 203 to that of the conditionally released prisoners. The number of men shown as having returned to an honest way of life was 3,457. But this number includes men whose reformation had occurred in previous years and had not been chronicled at the time, and also men whose names were expunged from the register as they were not really dangerous criminals. The number of proclaimed and absconding offenders during the year was 1,866. Five hundred and ninety-eight persons who had been proclaimed prior to 1916 were arrested during the year, and 832 persons advertised during the year of report were also arrested. A total number of 1,037 names was cancelled owing to death or other causes, leaving 4,545 absconders at large at the end of the year, as against a corresponding (revised) figure of 5,146 in 1915. A notable arrest during the year was that of the notorious outlaw Nga Myin *alias* U Pon Nya by the Minbu Police. This man, wearing the garb of a Buddhist monk, had led an attack on a police outpost in the Shwebo District as far back as 1907. The number of prisoners with previous convictions identified by the Police before sentence was 4,739. Of these 1,535 had three or more previous convictions. The number of slips received and accepted for record by the Finger Print Bureau was 17,089 as compared with 14,818 in the previous year. The total number of slips now on record is 162,124. Slips to the number of 2,384 were rejected for faulty record, as against 2,215 in 1915. During the year 7,764 slips were received for search and 2,025 were identified as pertaining to persons with previous convictions. Of these 55 were criminals under surveillance, and 44 were absconders. The finger-print slips of 1,110 police recruits and 285 railway employees were received. Of the police recruits, 27 were traced and found to be undesirables, while one of the railway employees was traced and found to have five previous convictions. A new system of classifying finger-prints, and a new method of indexing records, were introduced during the year and led to improved working. Expert evidence was given in 177 cases, of which 121 were criminal and 56 civil cases. In 6 cases evidence was given on commission. Written opinions were given in 202 cases, the majority of which were criminal.

Punitive Police.

41. Additional police forces numbering 693 officers and men were maintained throughout the year in the Tharrawaddy, Pegu, Prome and Hanthawaddy Districts. Additional police establishments amounting to 10 officers and men in the Shwebo and Sagaing Districts were disbanded early in the year. No new case of the imposition of punitive police occurred during the year.

Railway Police.

42. No alterations were made in the sanctioned strength of the Railway Police which stood at 62 officers and 371 men as in the previous year. At the close of 1916 there was an actual shortage of 1 officer and 6 men. The cost of the force was Rs. 1,82,700, a decrease of Rs. 5,321 due to the fact that the previous year's expenditure had included payment of arrears of rent for buildings. The discipline of the force was good. The number of dismissals and removals rose from 4 to 13, but the number of departmental punishments decreased by 16. Eleven officers and 30 men were rewarded. Thirty-seven recruits attended the depôt, of whom 34 passed out, 9 obtaining first-class certificates. Eighty-five men attended the depôt for recurrent training. Excluding cases in which investigation was refused and cases which were compounded, the number of true cases dealt with was 1,213, a decrease of 168 on the previous year's figures. Of these cases 732 resulted in conviction, 62 in acquittal or discharge, and 419 remained undetected. Out of 1,465 persons finally dealt with, 975, or 67 per cent., were convicted. There were 14 cases of attempt to derail trains, none of which resulted in conviction. Only 29 per cent. of the cases of ordinary theft dealt with, resulted in conviction. But, from the nature of the property stolen, detection was, in many cases, hopeless from the outset. Seventy-nine cases were dealt with under the Excise Act, of which 70 were sent to trial, of which again 94 per cent. resulted in conviction. Sixty-six true cases were dealt with under the Opium Act, of which

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90 per cent. ended in conviction. Fifteen true cases were dealt with under the Arms Act, of which 14 ended in conviction. There was 1 case of murder, 1 of attempted murder, 3 dacoities, 6 robberies and 1 case of house-breaking. Convictions were obtained in the cases of three of the robberies and the attempt to murder. The number of criminals under surveillance on the registers of the railway police was 418. The number of proclaimed and absconding offenders at the end of 1915 was 87, to which number 16 more were added during the year. Ten such offenders were arrested, and 43 names were cancelled, so that at the end of the year there were 50 criminals under surveillance. Sixteen village headmen, 19 villagers, and 10 railway employees were rewarded during the year.

Military Police.

43. On 31st December 1916 the actual strength of the military police was 16,693 Indian officers, non-commissioned officers and men, a number which was 272 above the sanctioned strength and 623 above the actual strength twelve months earlier. The embargo put on the recruiting of Sikhs, Western Punjabi Mahommedans, Dogras and Jats led, as in the previous year, to further changes in the caste composition of the battalions, and, as men of these races left to proceed on active service as volunteers, new companies of other races had to be raised, of Gurkhas, Garhwalis, Kumaonies and of the indigenous races of Burma. There are now indigenous companies of Burmans, Shans, Karens, Kachins and Chins. The most outstanding event of the year was the enlistment of a company of Burmans, which there was no difficulty in raising and maintaining. The number of military police volunteers sent to the war during the year was 2,641 including 30 signallers and 301 Mounted Infantry sent as a unit. The total number of volunteers despatched was thus brought up to 5,214 or about 30 per cent. of the total sanctioned strength. Numerous volunteers of all races are still impatiently waiting for permission to go. The men sent were attached to various Indian regiments at the front. The men on service have done well, as has been acknowledged by the Commanding Officers of some of the regiments to which they have been attached. But in some regiments invidious distinction has been made to the detriment of military policemen, in the matter of promotion and the recognition of good work. Military police signallers on service won high praise for the excellent work they performed. The following honours were gained at the war during the year:—three sepoys were awarded the Indian Order of Merit, 2nd class; one Subadar was awarded the Order of British India, 2nd class; two Subadars and one sepoy were awarded the Indian Distinguished Service Medal; and one sepoy was mentioned in despatches. The total number of casualties reported since the war began amount to killed 137, died of wounds 34, died of disease 68, died of accidents 2, missing 36 and wounded 451. During the year columns of military police were called out to suppress disorder, actual or potential, in the Shan State of Mongshu, in the trans-Salween Shan State of Kokang, and in the Pakôkku Hill Tracts. But no actual fighting took place. At Yenangyaung the military police post was reinforced to cope with threatened disturbances. The passes on the Siamese border were picketed as in the previous year. Owing to a strike among Chinese coolies in Tavoy, a body of 53 Indian officers and men was sent there with a European officer in charge. The needs of Rangoon Town again demanded reinforcements, which were provided. The usual demand for military police patrols for Lower Burma Districts had to be refused. The total cost of the force amounted to Rs. 61.61 lakhs as against Rs. 59·88 lakhs in 1915, when the cost was abnormally low owing to the depletion of numbers caused by the departure on service of volunteers. There was a further expenditure of Rs. 3.36 lakhs under the Budget head "Political." The health of the force was better than in 1915, a result attributable partly to the granting of three months' war furlough during the year and partly to the fact that recruits were all trained at Meiktila, instead of being distributed among the different battalions. The number of casualties from all causes were 563 as against 795 in the previous year. The number of men who were sent on sick leave was 706, and the number of admissions to hospital 16,659, the corresponding figures for 1915 being 947 and 17,603. There was an increase in the number of admissions to hospital at Mandalay, in the Chin Hills and the Arakan Hill Tracts. Elsewhere there was a

marked decrease. During the year the total number of recruits was 3,391 of whom 220 Indians and 480 Burmans, Kachins, Karens and Shans were enlisted in Burma, and the remainder in India. Among the recruits were 679 Gurkhas, 555 Garhwalis, 486 Kumaonies, 335 Brahmans and 297 Ahirs. Casualties by death were markedly fewer than in the previous year being 2 Indian officers and 277 men as against 7 officers and 355 men. The number who left on pension and gratuity was also lower, *viz.*, 27 Indian officers and 283 men as against 26 officers and 423 men in 1915. The number of dismissals fell from 93 to 65. The number of desertions fell from 136 to 90. In the Myitkyina Battalion the number fell from 50 to 24. The percentage of punishments to strength was 2·36 for Indian officers and 9·34 for men as against corresponding figures of 1·85 and 8·81 last year. The only crime noticeable as prevalent is "overstaying leave" generally by a few days. The rise in the percentage of punishments is attributable to the fact that the cream of the men have gone to the war and have been replaced by young recruits with an inevitable proportion of undesirables, to the increasing scarcity of experienced British officers, and frequent changes among those who remain.

Rangoon Town Police.

44. The sanctioned strength of the Rangoon Town Police, including the Port Trust Police and the Hackney Carriage Police, at the beginning of 1916, *viz.*, 99 officers and 1,246 men, remained the same at the close of the year, with the exception that the number of officers was temporarily increased by the addition of three European Sergeants, for river-patrol work. The actual strength on 31st December 1916 stood at 101 officers and 1,185 men. The shortage of men is almost entirely due to the continuing impossibility of obtaining adequate numbers of Indian recruits, despite the fact that men are accepted who are under the physical standard and not of the most desirable type. The total cost of the force amounted to Rs. 7,12,835 as against Rs. 6,70,374 in the previous year. Apart from an all-round increase in expenditure due to the war, the rise is attributable to expenses in connection with the visit of His Excellency the Viceroy, to the temporary increase in the cadre of officers, and to the cost of repatriating undesirables and political suspects. Fourteen men were dismissed, 29 men removed and 4 men were discharged during the year, as compared with 27 men dismissed, 14 men removed, and 3 men discharged in the previous year. Six of the dismissals followed on conviction by a magistrate. Minor departmental punishments were imposed on 7 officers and 107 men as compared with 6 officers and 139 men in 1915. Four officers (including three European Sergeants who left for better-paid appointments in other departments), and 90 men resigned, as against 7 officers and 109 men in the previous year. Four men deserted, including two Indian constables, who may possibly have died while on leave. One officer and 11 men died during the year. Twenty-two men retired on pension or gratuity, most of them on account of ill-health. The health of the force continued to be unsatisfactory and the number of admissions to hospital large, a state of things which is attributed partly to extra work imposed on a depleted staff, and partly to bad and insufficient house-accommodation. One hundred and fifty-two recruits passed through the Training Depôt during the year as compared with 231 in the previous year. In spite of unfavourable economic conditions due to high prices and a scarcity of employment, and of a general feeling of unrest due to the war, there was only a small increase in the volume of ordinary crime as compared with last year, while the number of cases of violent crime was actually less. The total number of cases taken cognizance of by the Police is down by 1,241 to 12,966. The decrease is more than accounted for by a fall in the number of petty offences, mainly against special and local laws, from 13,001 to 11,600. Cases of what may be considered true crime increased to 1,366, an advance of 160 on the previous year's figures. Non-cognizable crime dealt with by Magistrates showed a considerable increase from 9,813 in 1915 to 11,792, due mainly to more numerous prosecutions under the Indian Ports Act and the Burma Municipal Act. As regards serious crime, the number of offences against the State and public tranquillity was 26 as against 28 in the previous year. There were two cases of rioting, both of a petty nature. Serious

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offences against the person fell by 18 to 138. There were 11 murders, as against 13 in the previous year. Abduction cases fell from 17 to 6, and cases of causing hurt from 52 to 47, while grievous hurt cases rose from 34 to 43. A rise in the number of serious offences against property, or against property and person, accounts for practically the whole of the increase in true crime. The number of dacoities fell from 6 to 2 but cases of burglary rose from 67 to 160, an increase which is attributed to the police being short-handed and preoccupied with extra duties. Cases of minor offences against the person numbered 13 as against 4 in 1915. Of cases classed as minor offences against property the number investigated rose from 772 to 805, the increase being due to cases of ordinary theft being more numerous. Of the total number of 1,372 cases of true crime, including 6 cases compounded and withdrawn, investigation was refused in 193 cases. Of the remaining 1,179 cases, convictions were obtained in 755, a percentage of 64 as against 67 in the previous year. Of 38 cases tried by the Court of Session during the year, 28 ended in conviction and 10 in acquittal, as against 47 cases, 34 convictions and 11 acquittals in the previous year. The total value of all property stolen was Rs. 1,25,120, of which only 18 per cent. was recovered. There were 692 prosecutions under the Excise Act, of which 84 per cent. resulted in conviction, the corresponding figures for the previous year being 763 and 88. Under the Opium Act 526 cases were instituted, of which 85 per cent. resulted in convictions as against the previous year's 668 cases and 89 per cent. Cases under the Arms Act numbered 19, all of which ended in conviction, as against 14 in 1915. There was a marked increase in the number of prosecutions under the Gambling Act, which rose from 13 cases with 11 convictions to 62 cases with 50 convictions. A crusade against gambling marked the year. In March all the Chinese clubs were closed down, and in consequence gambling-dens were started in the houses of Chinamen in all parts of the town. To the efforts of the Police to suppress these is due the markedly larger number of prosecutions. The closing-down of the Chinese clubs led to an increase of crime, to which many of the evicted hangers-on resorted for a living. The crusade against gambling also led to the notorious "China Street murder" case, in which three Chinamen, erroneously suspected of having given information which led to a raid, were murdered in China Street by Chinamen who were never brought to book. Under the Foreigners' Ordinance 840 vessels were met during the year and 1,696 Indian passengers passing through Rangoon *en route* to India were examined, in addition to 217,142 arriving from Calcutta. Two undesirable Chinamen were deported. Agitation by the Vigilance Society continued to keep the "social evil" in prominence during the year. There were 103 prosecutions under section 43(*b*), Rangoon Police Act, and 9 under section 43(*c*). To study methods of dealing with this problem a senior officer of police visited Calcutta, Madras, Colombo and Bombay during the year.

Village Administration.

45. The number of headmen in Burma fell during the year 1916 from 17,258 to 17,059. The number of subordinate headmen decreased by 205 on the abolition of 27 posts of myothugyi or taikthugyi. The fact that the number of independent headmen did not increase with the reduction in the number of subordinate headman is due to the amalgamation of small charges. A departure has been made in the policy of Government in dealing with myothugyiships. The former declared policy of Government was to effect the gradual disappearance of myothugyiships, replacing them by village-tracts each under an independent headman. On the death, retirement or removal of a myothugyi, the *myo* was normally broken up into its component village-tracts. Whereas hitherto the specific approval of the Local Government was necessary for the retention of a myothugyiship on the death or retirement of an incumbent, this power has now been vested in Commissioners of Divisions. The Local Government had also under consideration during the year various schemes for raising and maintaining the dignity and authority of headmen, and in particular one for the formation of benches of headmen to exercise magisterial and executive functions in groups of village-tracts. Progress has been made with the work of demarcating the boundaries of village-tracts and of supplying to each headman a map of his charge. The only localities in which the work is not yet complete are outlying

portions of the Bhamo, Pakôkku and Katha Districts, and the Homalin and Maingkaing Townships of the Upper Chindwin District. The number of headmen exercising special judicial powers increased during the year. At the close of the year special civil powers were held by 1,849, and special criminal powers by 1,654 headmen, the corresponding numbers at the beginning of the year being 1,802 and 1,580. Special powers are sought after more as a mark of personal distinction than for their actual effectiveness as an instrument of justice. For the number of cases decided by headmen exercising special powers continues to be small. The total amount of fines inflicted by headmen during the year rose by Rs. 5,463 to Rs. 1,47,042. Prome, with a total of Rs. 14,907, heads the list for the second year in succession. The Tharrawaddy District however showed the largest increase, *viz.*, Rs. 4,521, followed by Shwebo with an increase of Rs. 2,873. The number of cases in which headmen's orders were revised by District officials was 44,659 as against 30,887 in the previous year. The headman's order was confirmed in 98 per cent. of the cases. The revenue work of headmen was as usual satisfactory. Collections of land-revenue were promptly made and defalcations were commendably few. But cases of omission of households from the *thathameda-rolls* in Upper Burma, and of individuals from the capitation-tax rolls in Lower Burma, were not infrequent. Inequitable distribution of the total *thathameda* demand of the village among the constituent households, a work performed by the headman in consultation with thamadis, came to light in the Meiktila Division. The collection of capitation-tax was attended with slight difficulty in some areas, mainly through weak or dilatory headmen, but on the whole the tax was realized promptly. Though as usual apathetic in excise matters, headmen continued to give invaluable assistance to the police in the detection of crime. Relations between the headmen, villagers and police were excellent everywhere, with the possible exception of the Katha District, where the police are said to be losing touch with the people. An experiment of arming selected headmen with guns in the Pegu and Irrawaddy Divisions proved successful, as no dacoities or robberies took place in or near the protected villages, and no case of loss or misuse of the weapons was reported. Attention has been paid to rural sanitation and headmen and villagers are reported to be beginning to realize the advantages of a clean village. The efforts that are being made in some Divisions to induce the people to stall their cattle outside the village-fence should contribute towards improving the sanitary condition. In an epidemic of plague in the Sagaing Division, the villagers concerned showed great readiness in evacuating villages, in submitting to inoculation, and in taking other burdensome measures deemed advisable, a readiness which is evidence both of the good understanding which exists between the officials and the people and of the authority which the headmen exercise in their villages. The duty of recording vital statistics was carried out with some efficiency throughout the Province. Good work was done in the Sagaing, Magwe and Meiktila Divisions in connecting villages with roads and paths usable at all times of the year. The conduct of headmen throughout the year was uniformly satisfactory. The number of headmen punished was 273 by dismissal, 71 by suspension and 306 by fine, as against corresponding figures of 288, 81, and 430 in the previous year. The total number of punishments has thus decreased both absolutely and relatively, the percentage of headmen who were punished to the total number of headmen falling from 4·6 to 3·8. A decrease of punishments occurred in all Divisions except those of Pegu and Irrawaddy. In the Bassein District an increase in the number of fines imposed, from 2 in 1915 to 25 in 1916 was due to punishment for remissness in clearing away the Beda weed. The number of headmen throughout the Province who received rewards rose from 1,691 to 2,025. Headmen also performed valuable service by their enthusiastic co-operation in encouraging the people to subscribe to the War Fund and in recruiting for the Army and the Military Police. The number of fines imposed on village-tracts increased by 92 to 288 and the amount realised by Rs. 24,971 to Rs. 75,431. The Arakan, Irrawaddy, Mandalay and Sagaing Divisions showed small decreases, which were more than counterbalanced by the large increases in the remaining Divisions notably Pegu. All the Districts of the Pegu Division show an increase, notably Tharrawaddy where the number rose from 16 to 57. This

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was due to the fact that the number of dacoities and robberies increased, necessitating action under section 13 of the Village Act. In the Thatôn District fines were imposed on the inhabitants of several village-tracts for suppressing evidence in important cases, while an increase in Yamèthin is due to action in cattle-maiming cases. As a contrast to this increase in punishments, in several cases villagers were rewarded for bravery in repelling attacks by dacoits. Cases in which the Track Law was applied increased from 13 to 40, the increase being most marked in the Tharrawaddy, Prome, Henzada, and Meiktila Districts.

Wild animals and snakes.

46. The total number of persons killed by wild animals during the year was 75 as against 66 in the previous year. The largest increase was in the Ruby Mines, where the mortality rose from 3 to 11, elephants and tigers each being responsible for four deaths more than in the previous year. Bhamo reported an increase of five, and Bassein, Minbu and Myingyan increases of four each. On the other hand no persons were killed in Kyaukpyu, against 11 in the previous year, the latter being the highest figure for 1915. Akyab and Pegu also reported decreases of five each. There was a fall in the mortality from snake-bite from 1,558 to 1,476. The biggest decrease was in Minbu where the deaths fell from 125 to 22. Pegu followed next with a decrease of 41 and Myaungmya and Ma-ubin with decreases of 22 each, whilst Tharrawaddy showed an increase of 45 and Magwe a further increase from 155 to 178. The Magwe figure appears to rebut the suggestion made in the previous year that increased activity in the destruction of snakes was responsible for the increase in the number of persons killed by snake-bite, for no snakes were reported to have been destroyed during 1916, as compared with 25,280 destroyed in the previous year, though it is hardly credible that no snakes at all were killed in the Magwe District in 1916, notwithstanding the stoppage of rewards for their reduction. Sir Lauder Brunton's lancets continued to be distributed in the majority of Districts, and cures were reported, but the usual doubt as to the venomousness of the snake in question persisted. The number of wild animals destroyed fell from 6,352 to 5,825 The biggest decrease, *viz.*, 428 was in Akyab, chiefly wild pigs, of which 459 only were destroyed, as compared with 877 in the previous year. In Katha the decrease amounted to 383, of which leopards numbered 302 and bears 61. There were also decreases ranging from 40 to 80 in the Toungoo, Thayetmyo and Amherst Districts. A sum of Rs. 77,827 as against Rs. 80,074 was paid for the destruction of wild animals, more than half in both years being paid for the destruction of leopards and panthers. The number of snakes destroyed fell from 34,757 to 11,905, Magwe, as already stated, accounting for the big decrease. Decreases of 631 and 406 were also reported by the Lower Chindwin and Sandoway Districts, respectively, which were more than counterbalanced by an increase of 1,771 in the Thatôn District. Five other Districts showed an average increase of 436. No rewards were paid for the destruction of snakes against Rs. 12,641 in the previous year. The total number of gun licenses in force for the protection of crops and the destruction of wild animals rose from 7,530 to 7,675. The principal increases were in the Bhamo (149) and Akyab (83) Districts, while the Tenasserim Division showed a decrease of 95.

Criminal Justice.

General.

47. Burma is divided into two parts for the purposes of the administration of justice. In Lower Burma the administration of criminal justice is under the control of the Chief Court, which during 1916 consisted of its normal complement of five Judges, there being a temporary Additional Judge up till June 5th. The judiciary in Lower Burma consisted of 66 European, 289 Burmese and Indian Judges or Magistrates and 34 benches of Honorary Magistrates. The Tharrawaddy, Bassein and Ma-ubin (now the Myaungmya) Sessions Divisions were reconstituted with effect from January 1st, the Henzada District being transferred from the Tharrawaddy to the Bassein Division and the Myaungmya District from

the Bassein to the Myaungmya Division. The Sessions Judge, Tharrawaddy, was appointed Additional Sessions Judge, Bassein Division, and was directed to take three-quarters of the Henzada Sessions. In spite of this re-shuffling, it was thrice found necessary, in order to cope with an excess of work, to appoint, for short periods, an Additional Sessions Judge in the Bassein Division, and a like number of times in the Tenasserim Division. To give relief to the District Magistrate of Tavoy, the appointment of an Additional District Magistrate was continued throughout the year. In Amherst an Additional District Magistrate was appointed for six months and in September replaced by a Special Power Magistrate. To relieve the District Magistrate, Tharrawaddy, who had to undertake a special inquiry into the causes of crime in that District, an Additional District Magistrate was appointed at the end of July for a period of six months. At Mergui an Additional Magistrate with Special Powers was appointed for three months. The temporary appointment of Additional Magistrates at Kungyangôn (Hanthawaddy District), Myaungmya, and Nyaunglebin (Pegu District) was continued throughout the year. In Upper Burma the Judicial Commissioner controls the administration of criminal justice. There was an Additional Judge of the Judicial Commissioner's Court throughout the year. In the Sagaing Division an Additional Sessions Judge, appointed on July 24th, tried all cases and heard all appeals during the remainder of the year. The Subdivisional Courts at Mogaung and Kamaing in the Myitkyina District were abolished on March 1st, and these areas added as two Townships to the Myitkyina Subdivision. On 1st July the Salè Township was transferred from the Myingyan to the Magwe District.

Cases.

48. In Lower Burma the number of cases reported was 87,346 as against 85,816 in the previous year. The number of reported cases under the Indian Penal Code was 38,444, practically the same as the previous year's figure, so that the increase is almost entirely due to cases under Special and Local Laws, which rose from 47,689 to 49,002. The number of cases returned as true cases was 69,680, being 25,828 under the Indian Penal Code, and 43,852 under Special and Local Laws. The ratio borne by the number of cases returned as true cases to the number reported is practically the same as in the previous year, being 80 per cent. for all cases, 67 per cent. for cases under the Indian Penal Code and 89 per cent. for the petty cases. The number of true dacoity cases reported decreased in number, from 201 in the previous year, to 147. The variations under the heads of robbery, house-breaking and lurking house-trespass were negligible. True cases of cattle-theft increased from 1,565 to 1,643. True cases of offences affecting life brought to trial during the year numbered 457; murders rising by 41 to 342, cases of attempt falling by 37 to 43 and cases of culpable homicide falling by 9 to 29. Grievous hurt cases numbered 1,110, practically the same as in the previous year. Of offences under Special and Local Laws, true cases under the Excise Act reported during the year were 5,165 as against 4,799 in 1915. Insein District, with 87 per cent., shows the highest increase on the previous year's figures, and the highest number of cases is from Tharrawaddy with 666. In Rangoon the progressive decline from 849 in 1914 to 700 in 1915 and 554 in the year of report is attributed to a diminution in the illicit traffic in cocaine, supplies of which used to come from Germany. Cases under the Opium Act decreased from 2,293 to 2,072. Under the Forest Act, there was an increase from 768 to 871. Under the Arms Act, true cases reported fell from 474 to 447. Under the Gambling Act there was an increase from 1,872 to 2,023. In Upper Burma the number of offences reported during the year was 30,016, or 1,044 more than in the previous year. Under the Indian Penal Code there were 13,198 cases reported and 9,676 returned as true, as against 12,804 and 9,404 respectively in 1915. Under Special and Local Laws, there were 14,753 true cases out of 16,818 reported as against 14,567 and 16,168 in 1915. The increase of true cases under the Indian Penal Code is chiefly in offences against property, against the human body, and against public justice, with increases of 151, 58 and 49 respectively. The number of murder cases declined by 12 and cases of grievous hurt increased by 30. The number of dacoity cases was the same as in the previous year, while robberies increased by 10. There was an increase of

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174 cases reported under criminal trespass. The increase in offences reported under Special and Local Laws is chiefly due to an increase of 1,028 in the number of prosecutions under the Police Act for which Mandalay Town is almost entirely responsible. Prosecutions under the Excise Act rose from 1,715 to 1,928. An increase in the number of cases under the Forest Act from 511 to 699, is accounted for by 170 prosecutions in the Minbu District for failure to return expired licenses to cut bamboos. The number of cases instituted under the Gambling Act was 2,048 as against 2,031 in the previous year. The number of complaints summarily dismissed was 3,802 in Lower Burma and 1,009 in Upper Burma as against corresponding figures of 3,593 and 1,051 in 1915.

Disposal of cases.

49. There were 84,141 cases brought to trial in Lower Burma, as against 83,240 in 1915. Of these 35,769 were cases under the Indian Penal Code, and 48,372 cases under Special and Local Laws. The total number of persons who underwent trial during the year was 141,432, as against 140,580 in 1915. The number of persons remaining under trial at the end of the year fell from 6,941 in 1915 to 6,660. The number of cases disposed of by District Magistrates was 619 as against 658 in 1915, while Additional District Magistrates disposed of 114. The number of cases disposed of by magistrates exercising special powers conferred under section 30 of the Code of Criminal Procedure was 2,047. Benches of Honorary Magistrates disposed of 28,466 cases, as against 27,563 in 1915, the Rangoon Bench accounting for 21,151 as against 20,251 in the previous year. The percentage of summary trials to the total remained the same as in the previous year, *viz.*, 43. The number of persons whose cases were disposed of by magistrates, and the number of persons who were convicted, committed to sessions, or whose cases were referred to a higher tribunal for sentence were respectively, in round numbers, 132 and 86 thousands, the same as in 1915. The percentage of cases resulting in conviction, commitment, or reference to the total number of cases was 65·39, the corresponding percentage in 1915 being 65·13. The number of cases in which proceedings were taken with a view to demanding security to keep the peace fell, from 105 cases affecting 163 persons in 1915, to 45 cases affecting 66 persons, of whom 61 were ordered to furnish security. The number of cases instituted with a view to demanding security for good behaviour fell, from 2,022 cases affecting 2,044 persons in 1915, to 1,814 cases affecting 1,840 persons, of whom 1,473 were required to furnish security. Applications for maintenance under section 488 of the Code of Criminal Procedure numbered 1,699 as against 1,768 in 1915, successful applications being 982 as against 1,108. The number of cases committed to Courts of Session during the year fell from 600 involving 1,044 persons to 560 involving 984 persons. The percentage of convictions was 59·49 as against 58·99 in 1915. The number of cases committed to the Chief Court was 40 involving 67 persons, as against 45 involving 72 persons in 1915. Thirty-eight cases were disposed of, involving 66 persons, of whom 23 were discharged or acquitted and 43 were convicted. The percentage of conviction was 65·15 as against 57·52 in 1915. The number of death sentences referred to the Chief Court for confirmation was 116, and the number of confirmations 75 as against corresponding figures of 111 and 57 in the previous year. The average duration of all criminal cases rose to 15 days, the highest figure ever recorded. The average duration of cases tried by stipendiary magistrates sitting singly, which constitute the vast majority of the more important classes of criminal case, was 20 days. The average duration of sessions cases rose from 45 days in 1915 to 59 days in the year of report. The total number of witnesses examined increased from 330,110 to 333,178. In Upper Burma the total number of criminal cases brought before the courts for trial was 29,574 cases or 1,101 more than in the previous year, the number of persons undergoing trial rising to 52,994 from 50,008. Cases under the Indian Penal Code rose by 455 to 12,736 and cases under Special and Local Laws by 646 to 16,838. The number of cases disposed of by magistrates was 28,726 or 1,459 more than in the previous year. Of these, 10,025 cases were disposed of summarily as compared with 9,799 in 1915. The number of cases disposed of by District Magistrates fell by 88 to 733. Cases disposed of by District Magistrates under their special powers

numbered 201, as against 208 in 1915. The number of cases disposed of by benches of Honorary Magistrates rose from 6,870 to 7,512, to which total the Mandalay Bench contributed 6,050. Magistrates had before them under trial 53,023 persons, as compared with 50,056 persons in 1915. The number whose cases were disposed of was 50,436, or 2,750 persons more than in the previous year. Of these 59·65 per cent. were convicted, committed, or referred, as against 61·76 in the previous year. The number of cases in which proceedings were instituted with a view to demanding security to keep the peace was 72 as against 120 in the preceding year. Sixty-five persons were ordered to furnish security as against 100 in 1915. The number of persons called upon to show cause against being ordered to furnish security for their good behaviour was 773, of whom 593 were required to furnish such security, the corresponding figures being 734 and 546 in the previous year. Applications for maintenance numbered 1,618 as against 1,663 in the previous year, and the number of successful applications 949 as against 943. The number of persons whose cases were committed to Courts of Session was 237, or 11 less than in the previous year. Cases disposed of by Courts of Session numbered 150 involving 275 persons as compared with 168 cases and 236 persons in 1915. The percentage of convictions was 69·78 or 8·19 lower than in the previous year. The numbers of cases committed to sessions during the years 1913, 1914, 1915 and 1916 were 163, 117, 161 and 110 respectively. No explanation can be given of this curious fluctuation. The cases of 41 persons came before the Judicial Commissioner for confirmation of death sentences, as against 59 persons in 1915. The sentence was confirmed in 25 cases as against 37. The average duration of cases was 12 days, or 1 day higher than in 1915. The duration of cases tried by Courts of Session averaged 49 days as against 48 days in the previous year. The total number of witnesses examined was 101,736.

Punishments.

50. In Lower Burma the number of death sentences increased from 58 to 76. The number of persons sentenced to transportation decreased from 499 to 425. The number of persons sentenced to imprisonment decreased from 17,856 to 17,704, of whom 3,137 received sentences of simple imprisonment as against 3,523 in the previous year. The number sentenced to imprisonment for 15 days and under decreased from 4,363 to 3,999 a decrease which the Honourable Judges of the Chief Court welcome as an instalment of what they hope is going to be a much more sweeping reduction in this class of sentence, which is open to obvious objections. Solitary confinement was imposed as a punishment in 686 cases against 754 in 1915. The number of whippings inflicted increased from 1,700 to 1,722. The number of juveniles whipped was 116 as against 124 in the previous year. There were 8 illegal sentences of whipping as against 11 in 1915 and 23 in 1914. The number of persons who were sentenced to pay fines was practically the same as in 1915 being 64,222 as against 62,645. The total amount of fines imposed was Rs. 6·12 lakhs as against Rs. 5·83 lakhs in the previous year, the amount of fines realized rising to Rs. 5·29 lakhs from Rs. 4·83 lakhs. The amount paid out of fines as damages under the provisions of section 545, Code of Criminal Procedure, fell by Rs. 4,677 to Rs. 27,348. There was a regrettable decrease from 1,148 to 914 in the number of first offenders released on security under section 562 of the Code of Criminal Procedure. Nineteen youthful offenders were sent to a reformatory school, as against 9 in the previous year.

In Upper Burma the number of persons punished rose from 28,606 to 29,296 persons. The number of death sentences fell from 37 to 25. The number of persons sentenced to transportation was 88, as against 89 in the previous year. Sentences of rigorous imprisonment fell from 3,556 to 3,414, while sentences of simple imprisonment rose from 187 to 245. The number of persons punished by fine rose from 24,323 to 24,970. The number of persons punished by whipping rose from 593 to 700. Sixty-five juveniles were sentenced to whipping as against 50 in 1915. The total amount of fines imposed declined from Rs. 2·69 lakhs to Rs. 2·56 lakhs, and the total amount realized from Rs. 2·34 lakhs to Rs. 2·29 lakhs. The amount of compensation awarded out of fines declined from Rs. 20,995 to Rs. 19,477. The number of first offenders released on security declined by 17 to 371.

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Appeals.

51. In Lower Burma the rise in the number of appeals preferred by convicted persons which had marked the year 1915, was slightly more than maintained in 1916, the figures being 8,053 in 1914, 9,218 in 1915, and 9,370 in 1916. During the year appeals preferred in the Courts of District Magistrates and Magistrates empowered under section 407, Criminal Procedure Code, decreased by 319 to 1,545, while the number in Courts of Session increased by 422 to 6,361, and the number in the Chief Court by 49 to 1,464. The appeals of 597 persons remained pending at the end of the year, as against 399 at the end of 1915. The percentage of sentences wholly confirmed to the total disposed of by all appellate courts was 70·41, as against 69·37 in 1915, and the percentage completely reversed 16·21 as against 15·89. In Sessions Courts the corresponding percentages varied from 79 to 65 and from 11 to 19. In the Chief Court the percentage of confirmation increased from 71·27 to 73·76 and that of complete reversal from 13·27 to 14·44. The Local Government preferred six appeals against the acquittal of 63 persons, being successful in the only case decided during the year. The average duration of appeals in all courts was 22 days, as against 25 in 1915, in the Chief Court 37 days as against 32, in District Magistrates' Courts 11 days as against 8. In Courts of Session, which deal with nearly two-thirds of the total number of appeals, the duration decreased from 28 to 21 days. In Upper Burma the total number of appeals preferred declined from 2,706 to 2,538. In the Court of the Judicial Commissioner the number declined from 252 to 209 and in the Courts of District Magistrates from 1,125 to 977. In Courts of Session, however, there was a slight rise from 1,329 to 1,352. The percentage borne by the number of sentences wholly confirmed on appeal to the total number dealt with fell from 59·05 in 1915 to 56·09 in 1916. The percentage of confirmations in the Judicial Commissioner's Court was 69·00, or 6·11 lower than in the preceding year, and in Sessions Courts also it declined from 63·01 to 54·20. But in the Courts of District Magistrates it rose from 51·04 to 56·00. The average duration of appeals dropped from 19 to 13 days. In the Courts of District Magistrates it fell from 16 to 10 days and in Sessions Courts it remained unaltered at 12 days.

Revisions.

52. In Lower Burma District Magistrates had before them on revision 6,760 cases involving 11,698 persons against 5,584 cases involving 10,604 persons in the preceding year. Further inquiry was ordered in regard to 252 persons as against 193 in 1915 and reference was made to the Chief Court in the case of 108 persons as against 193. In Courts of Session the number of persons whose cases were revised was 3,862 as against 3,838. Further inquiry was ordered in the case of 35 persons as against 46, and the cases of 178 persons were referred to the Chief Court as against 196. The cases of 2,189 persons came before the Chief Court in revision as against 1,777 in 1915. The orders of lower courts were confirmed in the cases of 1,644 persons as against 954, sentences were enhanced in 39 cases as against 23, reduced in 94 as against 74, and reversed in 217 as against 196. In Upper Burma District Magistrates disposed of 5,104 cases on revision, being 883 more than in the previous year. The number of cases called for under the Criminal Justice Regulation was 3,092. In 95 per cent. of these, the orders of the lower court were confirmed. In cases called for otherwise, the percentage of confirmations was 94·57. Courts of Session dealt with on revision cases involving 3,001 persons and confirmed the orders of the lower court in cases affecting 2,892 persons. The number of cases dealt with on revision by the Judicial Commissioner rose from 1,158 involving 2,051 persons to 1,163 cases involving 1,812 persons, of which 100 cases involving 195 persons were cases reported by lower courts. In the cases of 80·46 per cent. of the persons concerned, the orders of the lower court were confirmed as against a corresponding figure of 84·23 in 1915.

Prisons.

Accommodation.

53. The accommodation for males in the prisons of the Province in the year 1916 reached 16,469, or an increase of 356, and that for females was 320, the same as in the previous year. The daily average number of prisoners of all classes was 18,020 or 1,231 in excess of the accommodation available; but taking

into account the convict class alone (16,767), the capacity was overtaxed to the extent of 1,612. The overcrowding, which affected nearly all the jails, was, as far as possible, relieved by transfers. Taken collectively, the accommodation for under-trial prisoners was adequate; but, at some three jails there was considerable overcrowding among this class. At one of these jails the work of providing additional accommodation is in progress. One thousand and ninety-seven convicts who, from the state of their health, the period passed in jail, their conduct, etc., were deemed to be deserving of clemency, were released by order of Government, 327 on account of sickness and 770 on other grounds, the object being to relieve, in a measure, the congested state of the jails in the Province. The scheme for the employment of prisoners on public works, such as road-making, etc., received further consideration during the year. The extensions to the jails at Henzada and Mandalay have resulted in additional accommodation for 346 convicts, *viz.* 60 at the former and 286 at the latter jail. New wards were constructed at Mandalay for 66 male under-trial prisoners and 16 male civil prisoners, the old wards being absorbed in the extra accommodation provided for convicts. Good progress has been made with the jail extensions at Insein.

Prisoners.

54. The year opened with a population of 18,285 prisoners of all classes; 43,197 were received and 44,017 were discharged, leaving the number in confinement at the close of the year at 17,465—the corresponding figures for 1915 being 17,654, 43,700, 43,069 and 18,285. The daily average strength of all classes rose from 17,475 to 18,020. Convicts and civil prisoners show an increase of 517 and 53, respectively; under-trial prisoners returned a decrease of 25. The number of juveniles under 16 years of age, admitted into jail was 57 (52 boys and 5 girls), compared with 102 (97 boys and 5 girls) in the previous year; 273 juveniles, against 302 in 1915, were sent to the jails to be whipped. The percentage of re-convicted prisoners rose from 27·03 to 27·29, the highest figure appearing at Kyaukpyu (42·97), closely followed by Sandoway (41·72); it was again lowest at Bhamo (7·46). The figure was *nil* for the juvenile jail at Meiktila. Of the 19 juveniles (18 males and one female) under fifteen years of age admitted during 1916, only 3 all males) had been previously convicted, the corresponding figures for the previous year being 44 (41 males and 3 females) with 6 males previously convicted. Thirteen of the 19 male juveniles were sent to the Reformatory School at Insein. As regards the nature of sentences, 387 prisoners were awarded simple imprisonment, 20,354 rigorous imprisonment, 874 rigorous imprisonment with solitary confinement and 34 rigorous imprisonment with whipping, compared with 374, 20,005, 899 and 44, respectively, in 1915. The identification of habitual prisoners was effected, before conviction, in 5,615 cases, and in jails in 20 cases, against 5,542 and 46, respectively, the previous year.

Discipline.

55. The total number of offences committed, including offences dealt with by Criminal Courts, was 28,723 or a decrease of 2,971 as compared with 1915. The decrease occurs under all heads, but it is most noticeable under offences relating to work and all other breaches of jail rules. Penal diet was awarded in only 2,081 cases, against 2,427 in 1915. Offences relating to assaults, mutiny and escapes show a decrease of 183. Of the assaults, committed, only one, as in the previous year, proved fatal. The number of whippings was 81, compared with 73 in 1915, 24 being accounted for by the Rangoon Jail, against 3 in the previous year; this abnormal increase may be explained as being due to difference of practice by successive Superintendents. The number of escapes was 6, *viz.* 1 from inside and 5 from outside the jail—compared with 8 in 1915. Of those that escaped, 5 were re-captured before the close of the year. A percentage of 58·41 of the total punishments was awarded to habituals, who formed 41·74 per cent. of the daily average convict population. In comparison with 1915, there was a decrease of 1,162 in the punishments awarded convict officers. The services rendered by this class are, generally speaking, satisfactory.

Financial.

56. The total expenditure was Rs. 11,45,148 against Rs. 11,55,248, showing a decrease of Rs. 10,100. The gross cost per prisoner was Rs. 63-8-9, compared

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with Rs. 66-1-9 in 1915 and Rs. 69-10-1 in 1914. The net cost per prisoner fell from Rs. 57-8-0 in 1914 and Rs. 53-1-0 in 1915 to Rs. 51-1-9. The quantity of vegetables consumed by the prison population was 1,748 tons, against 1,680 tons in 1915, the increase being due to a larger daily average. The supply of jail-grown vegetables over and above requirements was sold and realized Rs 10,495, compared with Rs. 9,058 in the previous year. The farm produce, other than vegetables, was valued at Rs. 32,754, compared with Rs. 26,366 in 1915. Convict labour supplied to the Jail Branch Press, and to the Public Works Department, was valued at Rs. 79,853 or Rs. 1,200 more than in the previous year. No credit for this amount is taken in the Jail accounts.

Vital.

57. The rise in the ratios per mille of admissions to hospital and of daily average sick which had marked the previous three years, persisted in 1916 when they were respectively 307 and 17·04, as against 277 and 15·85 in 1915. The total number of deaths, however, fell from 351 in 1915 to 319, and the ratio of deaths per mille from 20·09 to 17·70. The outstanding feature of the year of report is its freedom from cholera, a disease which, as usual, accounted for many deaths among the outside population. At six jails, *viz.* Myanaung, Mergui, Shwebo, Kindat, Taungdwingyi and Meiktila there were no deaths during the year. Among the Central Jails, Mandalay headed the death-rate with 30·84 per mille; and among the District Jails, Moulmein with 29·64 per mille. The highest percentages of opium consumers are recorded against Akyab (44·39), Kyaukpyu (32·70), Bhamo (30·60), Katha (26·46), Kindat (21·62), and Henzada (19·81). Of the 319 deaths, 59 (against 40 in the previous year) were among those addicted to the opium habit. Morphinism accounted for 15 deaths. As usual, the largest number of cases were treated at the Rangoon Jail, the number being 64 with 13 deaths. At this jail 46 per cent. of the deaths were directly or indirectly due to the abuse of opium, morphine and cocaine.

Miscellaneous.

58. The Juvenile Jail at Meiktila, where the daily average number of inmates was 81 compared with 110 in 1915 and 119 in 1914, continued to be worked on the same system as in the previous year. The general management of the juveniles, all of whom were "casuals," was never found to be difficult. On admission to jail the rules are carefully explained to the youths, especially the remission system, a description of prison offences, the prospects of release in the case of those attaining the age of 18 or 20 years (as the case may be), provided their work and conduct have been good, and the several other privileges admissible. The conduct of the boys, on the whole, was very satisfactory. Three, who were likely to have an evil influence on the other boys, were transferred. Eleven, against 15 in the previous year, gained special remission for being free of punishment for 12 months. Every boy, except those physically unfit and those working extramurally, has to attend drill and gymnastics daily. After the evening meal all the youths are permitted to play foot-ball, or *chinlon*. The handicrafts, in which the longer term youths are instructed, were, as in previous years, carpentry, blacksmiths' work, timber-sawing, tinsmithing, and shoe-making while the short-termers were chiefly employed on gardening. Paddy-grinding was done by the new admissions. Five of the juveniles, released during the year, were granted sets of tools to enable them to carry on the trades they were taught in jail. Of the 36 juveniles who were presented with sets of tools between the years 1912 to 1915, only 19 or 52·78 per cent. are making proper use of them. In 11 cases the tools were recalled, in 3 the youths were employed as cart-drivers, in 2 instances the boys were not traceable, and in the remaining one the lad had died and the tools could not be found. The Vernacular School was successfully carried on up to the Seventh Standard. The maximum number under tuition was 91, against 112 in 1915, and 115 in 1914. The explanation for this decrease is to be found in the fact that between October and December 1915, 53 lads, mostly sentenced to long terms, were ordered to be released. During the year two Buddhist monks paid visits to the Jail and, between them, held 49 religious services, which were said to be much appreciated. The subject of the sermons was chiefly advice in the way of reformation, and encouragement to lead an honest and respectable life

after release. The scheme of manual training for young convicts was carried out at the 7 Central Jails and at the Toungoo and Akyab District Jails; during the year it was introduced at Moulmein. Youthful prisoners are instructed in handicrafts, which they show an inclination for, and which are likely to be helpful to them in earning a livelihood on release. Those who have attained proficiency are given sets of tools to be used after their release. The Juvenile School at the Rangoon Jail was examined by the Deputy Inspector of Schools on the 9th February 1917. Of the 12 pupils in the Infant class and 4 in the First Standard borne on the rolls, 6 in the former and 3 in the latter were presented for examination, and all passed. The principle of the separation of habitual and non-habitual prisoners was, as usual, observed in all jails so far as structural arrangements admit. The separation of different classes—civil prisoners, juveniles and under-trials, as well as casuals and habituals—is imperfect in many of the jails, especially the smaller ones. This is not due to the lack of appreciation of the necessity for separation, but to structural deficiencies and overcrowding. The difficulty is fully recognized and Superintendents of Jails do their best in the circumstances. The possibility of improving matters is receiving attention anew. During the vear 5,694 convicts, against 5,888 in 1915, were released under the remission rules. Of convicts who were eligible, three failed to gain remission, while the number for the previous year was *nil*. The number of convicts who were awarded special remission for being free of punishment for twelve months was 3,025, compared with 2,654 in 1915.

During the year an interesting experiment was started. The Salvation Army proposed that they should do something for the prison community and, at the instance of the Local Government, plans were discussed with the officers of that body and the Inspector-General of Prisons. With the sanction and financial assistance of the Government, a home for young released prisoners, and for those released conditionally under section 401 of the Criminal Procedure Code, was started at Kemmendine, a suburb of Rangoon. The formation of this home brings Rangoon into line with Bombay, Madras and Lahore, where the Salvation Army has organized methods of helping prisoners to return to honest life. The Rangoon system is on a small scale but, if successful, it will doubtless lead to something more ambitious in the way of diminishing the volume of crime.

Civil Justice.

Courts.

59. The administration of Civil Justice in Lower Burma is under the control of the Chief Court, which during the year consisted of its normal complement of five Judges, there being a temporary Additional Judge up till June 4th, 1916. The Districts included in the Tharrawaddy, Bassein and Ma-ubin Civil and Sessions Divisions were re-grouped with effect from 1st January 1916. The Tharrawaddy Division since that date has consisted of the Tharrawaddy District alone, the Judge being also appointed to be Additional Judge in the Bassein Division. The Bassein Division consists of the Bassein and Henzada Districts. The Ma-ubin, Myaungmya and Pyapôn Districts are combined in one Division with headquarters at Myaungmya. The pressure of criminal work in the Bassein Division necessitated the appointment of Additional Divisional and Sessions Judges for short periods. An Additional Judge was appointed to the District Courts of Hanthawaddy and Insein for a period of one and a half months. The appointment of an Additional District Judge, Tavoy, was continued throughout the year. With effect from 1st March 1916 the old Bassein Township was split up into two Townships, Bassein West and Bassein East. The distribution of the work of the Township Courts in the Bassein District was re-arranged so that the number of officers was not increased. The Kyauktan Township was split into two by the formation of a new Township at Syriam. Again arrangements were made so that there was no increase in the number of officers. The Township Court, Thanatpin, was invested with the powers of a Small Cause Court in suits up to a value of Rs. 50; and the Township Court, Pegu, was invested with similar powers, to be exercised in cases arising outside the limits of the Pegu Municipality. In Upper Burma the Judicial Commissioner controls the administration of Civil Justice.

CHAP. III.—PROTECTION. The temporary appointment of an Additional Judge of the Court of the Judicial Commissioner was continued throughout the year.

Suits. **60.** The volume of litigation in Lower Burma remained practically the same as in 1915, the number of suits instituted being 50,783 as against 51,208. The total number of suits for money and movable property decreased from 46,781 to 45,805. The Chief Court showed a decrease from 165 to 139 and the Court of Small Causes of Rangoon a decrease from 9,348 to 8,449. The total for Courts in the interior differed by only 51 from that of 1915, the variations for the different classes of courts being negligible. But there are notable variations in the District figures. Pyapôn, Amherst and Tharrawaddy exhibiting large decreases, and Akyab and Kyaukpyu equally marked increases. The rise in Akyab is due to a change of policy on the part of one of the banks in the direction of restricting credit and calling in loans, a change whose effect was enhanced by the fact that, owing to the low price of paddy, many of the smaller class of debtors could not meet their obligations. The fluctuations elsewhere can be assigned to no general cause. Suits for immovable property showed an increase from 1,148 to 1,455, for which Township Courts, with 1,115 institutions as against 821 in 1915, were mainly responsible, and which was evenly distributed among the Districts. A contributory cause of this increase was a ruling in the Chief Court to the effect that suits for land over which a landowner's right has not accrued, lie before Civil Courts and not before Revenue Officers. Suits for specific relief increased from 490 to 688. Amherst, Thatôn and Myaungmya shewed remarkable increases from 6, 12 and 9 to 42, 41 and 44 respectively. Mortgage-suits increased from 1,933 to 2,116, Subdivisional Courts with 467 as against 367 and District Courts with 256 as against 182 being mainly responsible. Fluctuations in the District figures were slight except in the case of Akyab, Prome and Myaungmya with 293, 173 and 165 as against 244, 108 and 130 respectively, and Tharrawaddy with 177 as against 203. The increase in the number of mortgage-suits points to a continued attempt to realize pre-war loans, and to the fact that since the outbreak of war the number of loans on the security of land has increased relatively to the number of loans otherwise secured. The aggregate value of all suits instituted fell from Rs. 1,90·63 lakhs to Rs. 1,49·31 lakhs. The value of suits filed in the Small Cause Courts outside Rangoon remained practically at the level of the previous year but that of suits filed in the Rangoon Court decreased by over Rs. 4 lakhs to Rs. 17·41 lakhs. In Township Courts there was a decrease from Rs. 40·07 lakhs to Rs. 39·36 lakhs, and in Subdivisional Courts an increase from Rs. 21·84 lakhs to Rs. 23·35 lakhs. The Courts with unlimited jurisdiction exhibit as usual violent fluctuations due to the abnormal value of a few suits. In District Courts a rise from Rs. 36·62 lakhs to Rs. 44·23 lakhs is due to a single suit in Thayetmyo. In the Chief Court a decrease of Rs. 45 lakhs, from Rs. 66 lakhs to Rs. 21 lakhs is mainly due to the fact that in 1915 the aggregate value was abnormally large owing to three suits whose combined value was Rs. 41 lakhs. The number of suits disposed of was 51,232 as against 51,338 in 1915. Of these 23·02 per cent. were contested as against 23·2 per cent. in 1915, the plaintiffs' percentage of success in these being 70·1 as against 70·2. The percentage of suits decreed on confession declined from 25·04 to 24·3, while the percentage of suits decreed *ex-parte* declined from 26·03 to 25·8. The number of cases pending at the end of the year rose from 5,643 to 5,816, but of these only 2,247 had been pending for over three months, as against the corresponding figure of 2,339 at the end of 1915. The average duration of contested cases increased from 77 to 79 days, and of uncontested cases from 45 to 49 days. For contested cases in District and Subdivisional Courts, the average duration fell from 241 days and 154 days respectively in 1915 to 212 and 147. In uncontested cases, the duration in District Courts was 72 days, as against 123 days in 1915, and in Subdivisional Courts 62 days as against 66. In Township Courts contested cases averaged 68 days, as against 63 in 1915, while the duration of uncontested cases was 40 days as against 35. In Upper Burma there was practically no alteration in the volume of litigation, there being only a slight increase in the total number of suits from 21,188 to 21,310. This increase is more than accounted for by

a rise in the number of suits instituted in Township Courts from 18,385 to 18,573. The figures for Subdivisional and Small Cause Courts show very little variation from the previous year. Suits in District Courts fell from 398 to 322. Among the Districts, Magwe shows the most marked increase in the number of suits instituted, while Pakôkku, Katha, and the Upper Chindwin show decreases. There was a very small increase in the number of suits for money or movable property from 19,410 to 19,440. The number of suits concerning immovable property was practically stationary, being 562 as against 567 in 1915. The number of matrimonial suits fell from 451 to 408. The total value of suits declined from Rs. 35·26 lakhs to Rs. 29·18 lakhs. Magwe was responsible for a decline of over Rs. 3 lakhs, and Mandalay for over a lakh and a half of rupees. The decrease in Magwe is a return to the normal, last year's figures being exceptionally high owing to litigation between owners of oil-wells. The decrease in the total value of all suits is almost all accounted for by a fall in the value of suits in District Courts from Rs. 11·08 lakhs to Rs. 5·30 lakhs. The number of suits disposed of during the year was 21,531, or 620 more than in 1915. Of the cases disposed of 23·61 per cent. were contested as against 23·28 in 1915. There were 2,963 cases decreed *ex-parte* as against 2,937. The number of cases referred to arbitration fell from 56 to 46. The percentage of plaintiffs' success in contested cases was 68 as against 67 in the previous year. The number of cases pending at the end of the year was 2,197, as against 2,320 in 1915. Mandalay with 539 cases is the outstanding contribution. The cases that had been pending for over three months numbered 662 as against 674 at the end of the previous year. In both contested and uncontested cases the average duration rose, from 77 to 80 for the former, and from 40 to 41 for the latter.

In Lower Burma the number of miscellaneous cases for disposal was 7,209 against 6,778, the number pending at the end of the year being 901 as against 825. In Upper Burma 2,079 miscellaneous cases were disposed of, and there were 382 cases pending at the end of the year, as against 1,732 and 343 respectively in the previous year. The number of applications for execution before the Courts was 39,252, as against 38,176, the number remaining pending at the end of the year being 5,807, as against 5,524. The amount realized increased from Rs. 20·80 lakhs to Rs. 22·44 lakhs an increase of Rs. 2·52 lakhs in courts in the interior being partly nullified by a decrease of Rs. ·88 lakh in the Chief Court and the Rangoon Small Causes Court. In Upper Burma the number of applications for the execution of decrees that came before the Courts for disposal was 12,772, as against 12,381 in 1915, and the number remaining pending at the close of the year 2,479, as against 2,462 at the end of 1915. The total realizations from execution of decrees was Rs. 4·68 lakhs, or Rs. 1·44 lakhs less than in 1915. The number of judgment-debtors imprisoned increased from 659 to 675 in Lower Burma and was 112 as against 114 in Upper Burma. The number arrested and released without imprisonment increased in Lower Burma from 1,824 to 2,091, and in Upper Burma decreased from 1,095 to 1,075. Sales of movable property in Lower Burma fell from 184 to 129, and in Upper Burma rose from 354 to 409. Immovable property was sold in 1,749 cases in Lower Burma, and in 413 cases in Upper Burma, as against corresponding figures of 1,468 and 361 in the previous year. The number of insolvency petitions in Lower Burma more than maintained the marked rise shown in the previous year, the number of cases for disposal increasing from 390 in 1914, to 663 in 1915, and to 724 in 1916. In Upper Burma there were 352 cases, as against 299 in the previous year. In Lower Burma 190 petitions were dismissed and in Upper Burma 76.

Appeals.

61. The total number of appeals from decrees before the Courts in Lower Burma was 3,408, as against 3,707 in 1915. Appeals preferred in District Courts against the decrees of Township Courts increased from 1,617 to 1,701. Of these 98 were summarily dismissed, as against 80 in 1915. The percentage of confirmations was 63·8 as against 62·6, of modifications 8·2 as against 8·1, of reversals 25·3 as against 26·2, and of remands 2·5 as against 3·2. The average duration, 54 days, was the same as in the previous year. The number of appeals against decrees preferred in Divisional Courts decreased progressively from 557 in

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1914, to 436 in 1915, to 363 in the year of report, of which 131 remained pending at the end of the year, as against 174 at the end of 1915. The percentage of confirmations was 63·05 as against 63·3, of modifications 14·3 as against 11, of reversals 19·7 as against 22·7, of remands 2·9 as against 3. The average duration rose from 114 to 147 days. Miscellaneous appeals before District and Divisional Courts numbered 253, as against 203 in the previous year and the number pending at the end of the year was 35 as against 26.

In Upper Burma the total number of appeals against decrees was 3,024, as against 3,089 in the previous year. In District Courts there were 1,813 cases, of which 1,457 were disposed of during the year, as against 1,773 and 1,456 respectively in the previous year. The average duration of appeals rose from 70 to 78 days. The number of cases in Divisional Courts increased from 24 in 1915 to 29. Of these 17 appeals were disposed of the average duration decreasing from 85 to 78 days. Miscellaneous appeals in all courts numbered 261 as against 260 in 1915.

The Chief Court of Lower Burma.

62. The number of suits instituted during the year was 327, or 15 less than in 1915. Suits for movable property fell from 165 to 139, and for immovable rose by 3 to 54. Mortgage-suits fell by 8 to 45, the same number as in 1914. The aggregate value was Rs 21·71 lakhs as compared with Rs. 66·87 lakhs in 1915 and Rs. 57·83 lakhs in 1914. The number of suits disposed of was 320, against 383 in 1915, and the number pending at the close of the year 266, against 260 twelve months earlier. Of the suits disposed of, 107, or 33·44 per cent. were contested, as against, 184, or 48·04 per cent., in 1915. The average duration of contested cases, *viz.*, 343 days, remained the same as in the previous year, and that of uncontested cases was 207, as against 216 in 1915. Plaintiffs were successful in 74·08 per cent. of the contested cases as against a corresponding figure of 75·5 in the previous year. The number of sales of immovable property was 45, against 37 in 1915, and the total amount realized in execution of decrees was Rs. 6 08 lakhs, as against Rs. 6·53 lakhs. The number of cases disposed of under the Presidency Towns Insolvency Act was 222, as against 243 in 1915, and the number remaining pending at the close of the year 105, as against 110 in 1915. Six cases were instituted on the application of creditors. One hundred and forty-eight debtors were granted discharge, and in 68 cases applications for discharge were dismissed or adjudication orders annulled. The number of regular appeals instituted in the Chief Court was 360, as against 399 in 1915. Of these 130 were against original decrees and 230 against appellate decrees. The number disposed of was 387, as against 619 in 1915. Of the number disposed of, 109 were from original decrees, and 278 from appellate decrees. The number of appeals pending from original and appellate decrees taken together fell from 542 in 1914, to 322 in 1915, to 295 in the year of report. The average duration of first appeals fell from 390 days in 1915 to 315, the lowest figure since 1907, and that of second appeals fell from 347 days to 250, which is the lowest figure since 1910. The decrees of lower courts and of the original side of the Chief Court taken together, were confirmed in 68·47 per cent., reversed in 23·77 per cent., modified in 5·68 per cent., and remanded in 2·06 per cent. of the total number of appeals disposed of. The percentage of confirmation in 1915 was 64·13. The percentages of confirmation in appeals against original and appellate decrees were respectively 60·55 and 71·58 as against 61·93 and 65·01 in 1915. The number of cases before the Chief Court in revision was 261 as compared with 291 in 1915. The number disposed of was 186, and the number pending at the end of the year was 75, as against corresponding figures of 229 and 62 in the previous year. There were 12 appeals before the Privy Council for disposal during the year, including 9 that were pending from the previous year. Six cases were decided during the year.

The Court of the Judicial Commissioner, Upper Burma.

63. The appellate work in the Court of the Judicial Commissioner, consisted of 727 cases (including 345 pending from the previous year), as compared with 845 appeals in 1915. Four hundred and eighty-four appeals were disposed of, as against 500 in 1915, and the pending list at the close of the year consisted of 243 appeals, compared with 345 in 1915. Of the cases decided, the share of work done by the Additional Judge was about 43 per cent. or 206 appeals. The percentage

of confirmation was 63·02, against 63·80 in 1915, and the average duration was 295 days, as compared with 328 days in the previous year. In revisional work the Judicial Commissioner had before him 455 applications for disposal, of which 167 had been pending from the previous year, as compared with 447 and 175 applications, respectively, in 1915. Of this number, 295 applications were disposed of and 160 remained unfinished at the close of the year, as against 280 and 167 respectively in 1915. The percentage of confirmations was 73·22, and the average duration was 208 days, compared with 70·71 and 251 days in the previous year. About 9 per cent., or 28 cases, were disposed of by the Additional Judge. In the last quinquennium, the number of suits instituted in Upper Burma was less than half the number in Lower Burma, yet the number of appeals before the Judicial Commissioner has been about the same as the number before the Chief Court. The number of applications for revision by the High Court has been greater in Upper Burma. This seems to point to the Upper Burman being more litigious than the native of Lower Burma. Many of the cases in Upper Burma are of a petty kind, and before they are decided have cost the litigants more than they can ever hope to realize out of execution of the decree. CHAP. III.—PROTECTION.

64. Six gentlemen were admitted as advocates of the Chief Court, Lower Burma, during the year, one as a first-grade pleader, 8 as second-grade pleaders and 13 as third-grade pleaders. Seventeen first-grade, 119 second-grade and 427 third-grade pleaders renewed their certificates during the year. The rules for admission and qualifications of advocates were amended during the year so as to bring them into line with the revised rules of the Calcutta and Bombay High Courts. The number of advocates' cases dealt with by the Judicial Commissioner, Upper Burma, rose from 113 to 114. General.

Registration.

65. No alterations of note were made in the working of the Registration Department in 1916. A new rule was added setting out the procedure to be followed by a Registering Officer when he receives notice of revocation of a power of attorney, and consequential amendments were made to the rules thereby affected. An amendment to Direction 39 makes an alteration in the manner of filing fishery bonds. General.

66. The total number of compulsory registrations affecting immovable property, *viz.*, 74,828 was the highest on record, and is 2,595 in excess of the previous year's figure. The excess is mainly due to a rise in Upper Burma from 9,882 to 12,134. The aggregate value of the instruments registered rose from Rs. 8,12·84 lakhs to Rs. 9,14·75 lakhs, about half of the increment being due to a rise from Rs. 58·24 lakhs to Rs. 1,10·78 lakhs in Upper Burma. Instruments of sale of the value of Rs. 100 and upwards rose from 25,521 to 31,629, and their value from Rs. 3,41·35 lakhs to Rs. 4,83·96 lakhs. The most marked increases were in Rangoon Town, with an aggregate value of some Rs. 99 lakhs, as against Rs. 66 lakhs in 1915, in Pegu with Rs. 45 lakhs as against Rs. 25 lakhs, in Pyapôn with Rs. 49 lakhs as against Rs. 20 lakhs, and in Minbu where the total value rose from under half a lakh of rupees to nearly Rs. 23 lakhs, in consequence of some oil-properties changing hands. Instruments of mortgage decreased from 43,409 in 1915 to 39,415 in 1916, there being a fall from 37,142 to 31,527 in Lower Burma and a rise from 6,207 to 7,888 in Upper Burma. The aggregate value fell from Rs. 3,24·75 lakhs to Rs. 3,09·08 lakhs in Lower Burma and rose from Rs. 32·67 lakhs to Rs. 48·25 lakhs in Upper Burma, so that for the whole Province the aggregate value, some Rs. 357 lakhs is practically the same as in the previous year. The rise in Upper Burma is again mainly due to dealings in oil-properties in Minbu. The number of optional registrations affecting immovable property rose from 150, involving a total value of Rs. 3·99 lakhs in 1915, to 164 involving Rs. 5·90 lakhs in 1916. Registrations affecting movable property increased from 8,160 to 8,416, but the aggregate value fell from Rs. 65·11 lakhs to Rs. 55·85 lakhs. Deeds registered.

CHAP. III.—PROTECTION. Income and expenditure.

67. Income derived from registration rose from Rs. 2,44,707 in 1915 to Rs. 2,46,287. The total expenditure was Rs. 1,16,203 as against Rs. 1,15,086 and amounted to 47 per cent. of the total income, the same as in the previous year.

Joint Stock Companies.

68. The stagnation in company-promoting continued during the year. Only five new joint stock companies, limited by shares, were registered during the year under the Indian Companies Act (VII of 1913) with a total authorized capital of Rs. 92·10 lakhs. Six companies having an aggregate authorized capital of Rs. 37·80 lakhs wound up their business during the year. One hundred and five companies were working at the close of the year with an aggregate authorized capital of Rs. 974 lakhs as against 106 companies with Rs. 917 lakhs twelve months earlier. Of the new companies, all but Rs. 60,000 of the aggregate authorized capital was accounted for by three companies. Of these Messrs. Rowe & Co., an European firm of outfitters, accounted for Rs. 40 lakhs. One of the others was a Burman company to carry on banking and money-lending business in Akyab, and the third a wolfram-mining company. Thirteen companies increased their capital during the year; of these, one company increased its authorized subscribed and paid-up capital, five companies increased their paid-up capital, and seven companies increased both their subscribed and paid-up capital. The total increase of paid-up capital was approximately Rs. 50½ lakhs. Three companies reduced their capital during the year, all in the subscribed and paid-up capital. Five companies established outside British India, filed their papers under section 277 of the Act during the year, bringing the total number of companies registered to 134. One society under Act V of 1912 was registered during the year. The fees realised during the year amounted to Rs. 4,335 as against Rs. 3,773 in the previous year. The cost of the separate establishment was Rs. 864.

Local Boards Administration.

69. There are no Local Boards in Burma. The District Funds in Upper Burma and the District Cess Funds in Lower Burma are administered by the Deputy Commissioners of the Districts to which they belong. Some account of their receipts and expenditure is given in Chapter V of this Report.

Municipal Administration.

Rangoon Municipality.

70. The ordinary income of the Rangoon Municipality for the year was Rs. 45·48 lakhs, against Rs. 44·19 lakhs in the previous year. The incidence of taxation and of income per head of population rose, from Rs. 11-11-9 and Rs. 15-8-2, respectively, in the previous year, to Rs. 11-14-10 and Rs. 15-15-4 in the year of report. There was no change in the number of Municipal taxes and the only change of rate was the enhancement, which took effect from the 1st January 1917, of the scavenging tax from 6½ to 8½ per cent. in one area to which the sewerage system had been extended. The regular revision of assessments of buildings and lands was again suspended on account of the continuance of the war. The revisions undertaken were in respect of 389 properties including 3 mills or factories, the owners of which submitted objections to the existing assessment. The number of new properties that came under assessment fell considerably, when compared with the previous year, from 1,577 to 445, the lowest figure recorded during the past five years. This fall is due to the curtailment of building operations owing to the high cost of materials and the stringency of the money market. The total number of properties separately assessed to taxation was 16,903. Objections to assessments were made in 769 cases. The assessments were confirmed in 410 cases, reduced in 324, and enhanced in 35. The agreement under which the Port

Trust paid, in lieu of taxes, a contribution of 4 per cent. on its ordinary revenue having expired on the 30th June 1916, a temporary arrangement was made that the Port Trust would pay, by quarterly instalments, Rs. 1,67,000 per annum on account of taxes on its property, until such time as a scheme can be evolved for putting the assessment of Port Trust property on an equitable basis. The Fire Brigade during the year attended 28 fires, the smallest number yet recorded. The estimated damage to property caused by fires was Rs. 1⅛ lakhs, which is less than the figure for any of the preceding ten years. A single fire accounted for one lakh of rupees of the total estimated damage. There was no change of importance in the lighting arrangements for the town. The Half-Watt lamps of 500 candle power experimentally installed last year were removed and replaced by arc lamps. Four arc lamps were replaced by Half-Watt lamps of 1,000 candle power. In East Rangoon 56 lamps were converted from high to low tension. The number of oil lamps in use was increased to a total of 788. No extensions or renewals to the water mains were made during the year. The new steel main was brought into permanent use in June 1916. To cope with increasing consumption of water during the dry season, the size of the main plungers at the Yegu Pumping station was increased, and this alteration has increased the pumping capacity by 33 per cent. The total quantity of water supplied to the town was 3,982 million gallons, as compared with 3,523 million gallons supplied during the previous year, or an average of about 11 million gallons per diem. In conservancy the principal work undertaken during the year was the altering and renewing of private manholes and connections, preparatory to the paving of back drainage-spaces. New lairs sufficient to accommodate 500 sheep and goats were erected at the slaughter-houses. The Veterinary Officer, while on leave in England, visited some of the best equipped abattoirs there, and alterations to the slaughter-house in accordance with his recommendations will be undertaken as soon as funds permit. It may be remarked that the Veterinary Officer found that the existing arrangements at Rangoon compare very favourably with anything he saw in England. The new pig slaughter-house at Kemmendine was brought into use in August 1916. No asphalte road-construction was undertaken during the year. A portion of the previous year's programme for stone sett paving, which could not be completed owing to the early advent of the monsoon, was carried out in the year of report. A number of roads were reconstructed or repaired with macadam and similar materials. The expenditure on roads was Rs. 4·49 lakhs as against Rs. 9·23 lakhs in the previous year. During the year the draft of a new Rangoon Municipal Bill was considered at five special meetings, and a report embodying the opinions of the Municipal Committee was sent to the Local Government. Amendments were made during the year affecting byelaws relating to back drainage spaces, to the Municipal Election Rules, and to the use of inflammable material in buildings. The revised byelaws passed in the previous year for regulating the sanitary condition of dairies and places where milch cows are kept for profit, were not enforced as under the existing conditions it was impossible to obtain the necessary staff and apparatus. The total number of births registered during the year was 6,045, representing a rate of 19·26 per mille of the estimated population as against corresponding figures of 5,791 and 18·63 for the previous year. The number of deaths, which in the previous year was 8,515 rose to 10,597, the rate per mille rising from 29·03 to 36·13. The rate of infantile mortality was 288 per mille as against 276 in 1915-16. There were 1,921 cases of plague with 1,810 deaths as against 590 cases with 571 deaths in the previous year. Deaths from cholera numbered 73 as against 99 in the previous year. Small-pox was much more prevalent than in the previous year there being 1,023 cases and 343 deaths as against 318 cases and 94 deaths. Most of the cases occurred in the first four months of 1916 and the epidemic was almost entirely confined to the poorest classes of Indians. Deaths from tuberculosis numbered 564 giving a death rate of 1·92 per thousand.

Minor Municipalities.

71. The number of minor municipalities was 44, the same as in the previous year. There was no alteration in any municipal boundary. The amount raised by taxation rose from Rs. 17·88 lakhs to Rs. 18·26 lakhs, and the average incidence

CHAP. III.—PROTECTION.

of taxation from Rs. 2-9-5 to Rs. 2-10-4. The incidence of taxation was highest at Akyab (Rs. 5-1-9), and lowest at Shwegyin (Rs. 0-15-6). The following fresh taxes were imposed: a lighting-tax at Allanmyo-Ywataung, a tax on motor-vehicles at Bassein, and a tax on bullock-carts kept within town limits at Taungdwingyi. A general revision of the system of taxation was completed at Pakôkku, where the method of assessment on rental values was substituted for that based on area in the case of the house-tax, and for assessment at fixed rates in the case of the scavenging and latrine taxes. The rates for bullock-carts and hand-carts were also revised. Systematic revaluation of property was carried out at Ma-ubin and Moulmein, where most of the taxes are assessed on the basis of annual rental values, and in the latter town the rate of the tax on motor-vehicles was enhanced. The number of members of Municipal Committees increased by 5 to 565 of whom 179 were *ex-officio*, 289 nominated, and 97 elected members. Out of the total 565, 200 were officials, and 365 non-officials, while there were 131 Europeans and 434 Burmans, Indians and other Asiatics. During the year the Local Government had under consideration the question of entrusting the administration of selected municipalities to non-official committees. Elected members sat on ten committees only as in the previous year, although the elective system is in force in 12 municipalities. General elections were held in five municipalities—Akyab, Bassein, Insein, Pegu and Toungoo. In two of those towns there was no contest, and in one only one seat was contested, which seems to indicate a lack of interest on the part of rate-payers. There was a marked improvement in the general health of many of the municipalities. Twenty-five recorded a decreased mortality and only fifteen recorded an increase. The improvement in the health of the municipalities was most marked in the Upper Burma Municipalities, only two of which, Taungdwingyi and Yamèthin, had an increased mortality. In the former town there was an abnormally high infantile death-rate, while in the latter there was a serious outbreak of plague. Pyinmana also suffered from an epidemic of plague. There was a marked absence of epidemics in most of the other municipalities in Upper Burma, though Mandalay, Bhamo and Myingyan recorded a considerable number of deaths from plague. In Mandalay deaths from plague dropped from 1,933 to 54, while cholera, which caused 736 deaths in the preceding year, practically disappeared. The health of the town improved in other respects also and the death-rate declined from 72·46 to 42·30 per mille. In about half of the total number of municipalities in Lower Burma there was a decreased mortality. Plague was fairly general, and there were serious epidemics at Bassein, Prome, Ngathainggyaung, Toungoo, Paungdè and Thônzè. At Bassein, in addition to the plague, there was an outbreak of cholera, which carried off 79 persons. Kyaiklat also suffered from epidemics of both these diseases. Cholera was much less prevalent generally than in the preceding year and was confined to Lower Burma except for a few isolated cases. There were outbreaks of small-pox, none of them serious, in sixteen municipalities. Beri-beri was more severe in Akyab than in the previous year. The two recurring grants of six lakhs of rupees for urban sanitary improvements, together with refunds of unutilized grants of previous years amounting to Rs. 2·53 lakhs, were fully allotted to the various municipalities and towns. The schemes for which these grants were made are noticed in Chapter VI of this Report. There was a rise from Rs. 2·70 lakhs to Rs. 2 88 lakhs in expenditure on public safety. The chief contributors to the increase were the Kyaiklat Municipality, which purchased a fire-engine and accessories at a cost of Rs. 5,615, and the Pegu and Allanmyo-Ywataung Municipalities, which spent respectively Rs. 3,751 and Rs. 3,584 more than in the previous year on street lighting. A destructive fire occurred in a cotton-mill at Myingyan, the damage caused being estimated at about a lakh of rupees. Considerable damage was caused by fire at Akyab, Bassein, and Mandalay. The total expenditure on water-supply amounted to Rs. 4·16 lakhs, or Rs. 15,755 less than the amount incurred in the previous year. The water-distribution scheme at Letpadan, which was to have been completed during the year, had to be postponed on account of the high prices of materials. Total capital outlay amounted to Rs. 3·49 lakhs, of which a sum of Rs. 2·39 lakhs was spent on the Pegu water-supply scheme alone. Although the dam for collecting the water in connection

with this scheme has been completed, some difficulty is being experienced in procuring the pipes necessary for distribution. A similar difficulty stopped the progress of the Yamèthin water-supply scheme on which a sum of Rs. 45,058 has been expended. Estimates are to be framed for schemes which will, it is hoped, finally solve the water problem at Bassein and Pakôkku. A tube well was sunk at Paungdè at considerable expense, but water was not found even at a depth of 710 feet. A further grant has been made for sinking another well. Similar experiments at Taungdwingyi and Pyinmana also failed. At Myingyan however tube wells have been successfully sunk, and are said to give an abundant supply of potable water. At Thônzè the maintenance of the water-supply has involved a loss of Rs. 5,000 annually to the Municipal Fund, owing to the entirely inadequate and expensive distribution system. At Syriam, Messrs. The Burma Oil Company, Limited, generously lent their drilling plant free of charge and supplied at pre-war rates the length of piping required for an artesian well. Total expenditure on drainage was Rs. 1·81 lakhs, of which Rs. 1·60 lakhs represented capital outlay and Rs. 21,428 charges on account of establishment, repairs, etc., against Rs. 91,486 and Rs. 38,510, respectively, in the previous year. The bulk of the capital outlay was incurred at Akyab, Toungoo, and Mandalay. At Akyab, drains in two areas were almost completed, bringing the length of new drains up to 26,124 running feet. The drainage scheme has, however, proved more expensive than was originally estimated, and work on the remaining areas has been suspended while proposals for financing the scheme are under consideration. At Toungoo, the second section of the drainage scheme is in hand, the first section having been completed. The Shwedaungtada drainage scheme at Moulmein, which had been in abeyance owing to the difficulty of obtaining an estimate of its cost, has now been definitely abandoned. The expenditure on conservancy advanced slightly from Rs. 8·16 lakhs to Rs. 8·29 lakhs. The conservancy arrangements in most towns are still defective and inadequate, and the primitive system of cess-pit latrines is not uncommon. Several committees are experimenting with the ærobic-filter type for public latrines. Existing conservancy methods are in many cases uneconomical, but the introduction of new systems is necessarily costly, and radical improvements can rarely be financed by municipalities from their own resources. The most important schemes reported during the year were made possible by outside help. Thus, at Syriam, Messrs. The Burma Oil Company, Limited, are providing septic-tank latrine accommodation for 2,000 coolies who at present reside in the town, while Provincial grants amounting to Rs. 17,000 and Rs. 37,593, respectively, were given towards conservancy schemes at Mandalay and Tavoy. Charges on account of health officers and sanitary inspectors remained almost stationary. Expenditure on hospitals and dispensaries amounted to Rs. 7·16 lakhs as compared with Rs. 6·09 lakhs in the previous year. The increase was most marked in the municipalities of Pegu, Toungoo and Tavoy, all of which received Government grants, the first two for the construction of new hospitals, and the third for the construction of a special ward of 20 beds to accommodate patients from the mines. At Akyab and Myingyan the expenditure showed an increase of over Rs. 7,000. Expenditure on markets and slaughter-houses declined from Rs. 4·98 lakhs to Rs. 3·36 lakhs. In the previous year the total was swollen by the construction and the extension of bazaars at Sandoway, Paungdè, and Wakèma. This year the only important increase under this head was at Tavoy where certain sanitary improvements to the bazaar were carried out. At Mandalay, a range of godowns was constructed at a cost of over Rs. 33,000, but most other municipalities found the cost of materials for constructing new buildings prohibitive. Expenditure on public works fell from Rs. 8·92 lakhs to Rs. 8·54 lakhs. As in the previous year, the major portion of the expenditure (Rs. 6,19,777) was on roads. Four municipalities, Kyaukpyu, Shwegyin, Shwebo and Mônywa, spent less than Rs. 1,000 under this latter head. Expenditure on public instruction totalled Rs. 2·09 lakhs against Rs. 2·14 lakhs last year. In accordance with a resolution passed at a conference held on the 31st July 1916, the administration of certain branches of Vernacular education has been entrusted to Divisional Boards, and expenditure on Vernacular education is to be borne by

CHAP. III.—PROTECTION.

local funds, while expenditure on Anglo-Vernacular education will be met from the Provincial Budget. Municipalities in Upper Burma (with the exception of Mandalay) have not in the past been called upon to contribute towards education, and it has been decided therefore to effect the transfer of the cost of Vernacular education gradually in these municipalities, with effect from 1918-19. The minimum percentages of annual municipal assignments to the respective school funds have been fixed under section 73 of the Burma Municipal Act so as to complete the transfer by 1922-23. The chief defects brought to notice by the annual audit of the accounts of municipalities were delay in the preparation of assessment rolls and in the collection of taxes, irregular maintenance of stock-books, double payments, and failure to take proper action on audit instructions. Embezzlements by the collecting staff were discovered at Moulmein, Gyobingauk and Minhla. They were rendered possible by neglect of the rules for the collection of taxes.

There were 20 notified areas as in the previous year. The total income, excluding opening balances amounting to Rs. 3·49 lakhs and extraordinary receipts amounting to Rs. 15,972, was Rs. 9·84 lakhs as compared with Rs. 8·29 lakhs in the previous year. The incidence of taxation and of income rose from Rs. 2-4-5 and Rs. 7-12-8, to Rs. 2-5-8 and Rs. 8-15-6, respectively. The incidence of taxation in Maymyo rose from Rs. 8-8-6 to Rs. 9-0-1, a figure higher than that of any municipality (except Rangoon) or any other notified area. Eleven Town Funds closed with balances exceeding Rs. 10,000, and the balances of five of the funds were larger than the expenditure during the year. On the other hand, the notified area of Danubyu went to the other extreme and closed with a balance of Rs. 17-3-5 only, thereby failing to maintain the prescribed minimum. Nearly one-third of the total expenditure of this Town Fund was under "Hospitals and Dispensaries." In the case of several notified areas the explanation of the low expenditure is to be found in the postponement, till materials are cheaper, of projects for which funds have been accumulated but which are not of great urgency. The Kalaw water-supply scheme was completed during the year and proved completely successful. A tube-well was sunk at Minhla and is reported to yield a plentiful supply of water. Attempts to sink tube-wells at Zigôn and Meiktila, however, were unsuccessful. Eight towns, Thôngwa, Nyaunglebin, Zigôn, Minhla, Shwedaung, Danubyu, Yenangyaung, and Pyawbwè, suffered from plague, while at Kyônpyaw there were outbreaks both of plague and cholera. The Town Committee of Maymyo, in the hope of solving the difficult problem of a pure milk supply, showed much enterprise in starting an experimental dairy farm, which is said to be paying its way.

Marine.

Light-houses and light-ships.

72. The improvements to the landings at the Alguada Reef Light-house were nearly completed and those to the China Bakir Light-house completed. The light-ship "Danidaw" stationed at the Baragua Flats and the "Kalagauk" at the Krishna Shoal were brought in turn to Rangoon for the annual overhaul, being replaced during their absence by the relief vessel "Martaban." The light on the "Kemmedine" stationed at the Spit was shut down from March 1917. The China Bakir light was altered to a flashing white light, burning paraffin instead of cocoanut oil as hitherto, and was exhibited on the 7th December 1916. During the alteration the "Martaban" was moored off the edge of the China Bakir Flats, 2 miles due east of the light-house, exhibiting a temporary light showing a white flash every forty seconds. The R.I.M.S. "Mayo" was the station vessel during the year and carried out all reliefs in connection with light-houses and light-ships. Owing to the irregular steamer service to Akyab, advantage was taken of her visits to that port to ship Public Works Department stores, specie, etc. She was absent from the station for two periods performing services required by the Government of India in the Military Department. There were no deaths at any of the light-houses and the health of the light-keepers, both European and Indian, and of the crews of the light-ships, was good, except at China Bakir and measures were taken to relieve

the crew there every month. The total expenditure on light-houses and light-ships decreased from Rs. 2·66 lakhs to Rs. 2·45 lakhs, repairs to the four light-vessels costing Rs. 32,607 less, while the expenditure on repairs to light-houses by the Public Works Department fell by Rs. 10,793. On the other hand expenditure on oil increased by Rs. 8,793 and that on blue light composition by Rs. 9,482. The rate at which coast-light dues are leviable under the Burma Coast-lights Act having been raised from one anna and one pie to one anna and three pies per ton of burden with effect from the 1st May 1916, the receipts from coast-light dues rose slightly from Rs. 3·36 lakhs in 1915-16 to Rs. 3·72 lakhs in the year of report. These amounts do not include the annual contribution of Rs. 4,200 paid by the Port Commissioners, Rangoon, towards the Spit light-vessel. The annual *pro formâ* account of the Burma coast-light dues showed a loss of Rs. 1,15,855 on the year's working as against a loss of Rs. 1,56,841 in the previous year.

Port Administration: Rangoon.

73. The revenue accounts of the Commissioners of the Port of Rangoon for the year 1916-17 showed a surplus of Rs. 5·14 lakhs. The receipts were Rs. 45·13 lakhs, as against Rs. 45·37 lakhs in the previous year, while expenditure rose slightly from Rs. 39·85 lakhs to Rs. 39·99 lakhs. Of the surplus Rs. 2 lakhs were transferred to the depreciation and replacement, and fire and marine funds, leaving a balance of Rs. 3·14 lakhs to be carried forward to the nett revenue account. At the close of the year the capital debt of the Port amounted to Rs. 299 lakhs. Securities which cost Rs. 51·89 lakhs are held at the credit of the sinking fund. Expenditure on capital account during the year fell to Rs. 2,443. A special reserve fund was created during the year to meet the depreciation in the value of securities held on account of the three reserve funds. A sum of one lakh of rupees was transferred to this special reserve fund, and Rs. 1·5 lakhs was added to the revenue reserve fund, Rs. 1·24 lakhs to the fire and marine insurance fund, and Rs. 2·06 lakhs to the depreciation and replacement fund. At the close of the year the face value of the securities held by the three reserve funds and the special reserve fund was Rs. 36·7 lakhs. The Customs returns show that 84·18 per cent. of the foreign and coasting trade of the Province passed through Rangoon. Of the imports 55·6 per cent. were landed on the Commissioners' premises and 44·4 per cent. landed on private premises or discharged into inland vessels to be river-borne. Of the exports 16·5 per cent. were shipped from the Commissioners' premises. The inland river-borne trade over the Commissioners' premises amounted to 720,309 tons as against 717,655 tons in 1915-16 and 663,097 tons in 1914-15. The total revenue of the traffic department was Rs. 22·26 lakhs a decrease of Rs. 52,595 on the figures for the previous year and the expenditure, exclusive of capital expenditure was Rs. 8·5 lakhs as against Rs. 8·75 lakhs in the previous year. The total expenditure of the engineering department was Rs. 5·2 lakhs. Only minor new works and the usual maintenance and repair works were undertaken. The greatest sinkage along the top of the river wall in the seven months ending January 31st was $1\frac{1}{8}$ inches and the average $\frac{1}{8}$ inch. There has been a slight settlement of the apron in two places. It is estimated that nearly a million and a half tons of silt were deposited in the embayment behind the wall during the year. In places the silt is two feet higher than the top of the wall, or about a foot below the average high water mark, and thick grass and shrubs are growing over a great part of the area. Excluding Government vessels, 996 steamers with a total net registered tonnage of 2,064,091 entered the port, a decrease of 95 steamers and 109,448 tons as compared with the previous year, and 1,005 vessels with a total registered tonnage of 2,081,444 left the port. Dredging operations were successful and a channel with a minimum depth of 14 feet of water was maintained through the dry season. During the year 64 vessels had, owing to insufficient water, to complete their loading below the Hastings, and 11 incoming vessels being unable, for the same reason, to enter, were detained below the Hastings. Complete new surveys of the river bed from the harbour beacons, Syriam, to the Hmawun beacon, and from Elephant Point to Fairway buoy were completed. Eleven members of the staff proceeded on war service during the year.

CHAP. III.—PROTECTION. Pilot Service: Rangoon.

74. The Rangoon Pilot Fund opened with a balance of Rs. 13,880, the receipts for the year amounted to Rs. 2,91,680 and the payments to Rs. 3,14,540, showing a deficit balance of Rs. 8,980. The usual annual contribution of Rs. 21,000 to the vessels' depreciation fund was again not paid, and that fund increased only from Rs. 2·04 lakhs to Rs. 2·11 lakhs. Excluding miscellaneous receipts amounting to Rs. 3,505, the gross pilotage fees decreased from Rs. 3·07 lakhs to Rs. 2·88 lakhs, and the payments to pilots from Rs. 2·26 lakhs to Rs. 2·20 lakhs. The pilot service was well maintained during the year, only two cases of delay being reported, one for twelve hours which was due to the arrival of a vessel before the advised date, and the other for five hours and forty minutes. The Local Government sanctioned the seconding of the commander of the pilot brig, his pay being calculated on the pay of his grade *plus* a monthly command allowance. The pilots on duty as harbour-masters at Basra, who did not receive any allowances from the Port Commissioners, were seconded. This procedure enabled the Commissioners to grant sub. *pro tem.* promotions in the various grades. A scheme for the improvement of the finances of the pilot fund was under consideration by the Local Government but at the end of the year it had not been approved.

Minor ports.

75. Excluding the Rangoon Port Trust, there are six ports in the Province, *viz.* Akyab, Kyaukpyu, Bassein, Moulmein, Mergui and Tavoy, in which Port Funds are maintained. The total receipts and expenditure of these funds were Rs. 4·25 lakhs and Rs. 4·32 lakhs, as compared with Rs. 4·03 lakhs and Rs. 4·24 lakhs respectively in the previous year. The increase in receipts occurred in Moulmein, Akyab, and Tavoy. The last-named fund was, however, not in a position to pay during the year the full Public Works Department expenditure incurred on Port Fund works and the Local Government had to help it with a contribution. Expenditure increased in Bassein, Tavoy, and Kyaukpyu, the increases in the two former being noticeable. Expenditure exceeded receipts in the Port Funds of Akyab and Kyaukpyu, which closed with smaller balances than in 1915-16. Although the closing balance of the Moulmein Port Fund was greater by Rs. 12,639 than in the previous year, still the state of the finances of the fund continued to be unsatisfactory and the sanction of the Government of India was obtained to the extension of the period of repayment of the loan of Rs. 2 lakhs granted in 1908 from ten to fifteen years. The annual instalments and interest which fell due on the 1st April 1915, 1st April 1916, and 1st April 1917, aggregating Rs. 26,909, were however paid by the fund in June 1917. As the Tavoy Port Fund was unable to pay the annual instalment on the loan of Rs. 65,000 in addition to carrying out urgently needed improvements to the port, the Government of India sanctioned the extension from ten to fifteen years of the term of the loan, and the postponement till the 24th February 1919 of the payment of annual instalments of principal. Interest due on the loan up to the 24th February 1917 has been paid. At the end of the year the Moulmein and Tavoy Port Funds owed the Local Government Rs. 70,813 and Rs. 68,336 respectively. Outside Rangoon there are pilot funds at Akyab, Bassein and Moulmein. These funds derive their income from pilotage fees and the expenditure consists mainly of cost of maintenance of pilot vessels and payments to pilots. The aggregate receipts of the three pilot funds decreased slightly from Rs. 1·13 lakhs to Rs. 1·11 lakhs; the expenditure rose at Akyab and Moulmein but fell at Bassein; and in each case the closing balance showed a decrease. Port Officers appointed by Government and assisted by advisory boards continued to manage the ports of Akyab, Bassein and Moulmein. During the year it was decided to exclude aliens other than the subjects of any State in India from these boards and their constitution was modified so that four of the seven members shall be British subjects or subjects of any State in India. They will be as far as possible representative of the various mercantile interests, and at least one of them will be a Burman or an Indian.

Commercial marine: shipping.

76. The number of vessels entering ports in Burma increased further from 4,571 in 1915-16 to 6,095, but their aggregate tonnage again fell from 2,917,515 tons to 2,708,301 tons. Similarly while the number of vessels clearing increased from 4,244 to 5,631 the tonnage fell from 2,949,902 tons to 2,707,365 tons. The total

number of entries of vessels engaged in the foreign trade was 565 with an average tonnage of 1,573 tons, as compared with 421 vessels with an average tonnage of 2,244 tons in the previous year. The clearances were 679 vessels with an average tonnage of 1,405 tons, as against 460 vessels with an average tonnage of 1,995 tons. Of these sailing ships rose from 87 to 224, but the average tonnage declined from 202 tons to 121 tons. The entries into Rangoon from foreign ports were 337 vessels with a tonnage of 732,645 tons, as against 312 vessels with a tonnage of 808,966 tons, and the clearances 364 with a tonnage of 837,205 tons, as against 297 with a tonnage of 756,850 tons. The number of sailing ships clearing from the port fell from 5 with a tonnage of 8,348 tons, to 2 with a tonnage of 3,190 tons. The total number of vessels which entered in the coasting trade of the Province was 5,530 aggregating 1,819,491 tons, as against 4,150 vessels aggregating 1,972,898 tons and 4,952 vessels of 1,753,224 tons cleared as against 3,784 vessels of 2,032,165 tons in the preceding year. The number of entries of sailing craft increased from 2,674 in 1915-16 to 4,425 in the year of report, and the tonnage from 77,835 tons to 123,361 tons. Clearances of sailing craft rose from 2,289 to 3,855 and the tonnage from 70,669 tons to 107,974 tons. The considerable decline in the number of both entrances and clearances of steamers observed in the previous year continued in the year of report, 1,105 steamers entering with a tonnage of 1,696,130 tons, and 1,097 clearing with a tonnage of 1,645,250 tons, as against entrances of 1,476 steamers with a tonnage of 1,895,063 tons and clearances of 1,495 steamers with a tonnage of 1,961,496 tons in 1915-16. Of the vessels engaged in the coasting trade 655 steamers with a tonnage of 1,321,028 tons entered Rangoon, as compared with 782 steamers with a tonnage of 1,371,434 tons in the previous year, and 637 steamers with a tonnage of 1,236,247 tons cleared, as against 799 steamers with a tonnage of 1,427,808 tons in 1915-16, while 166 sailing ships with a tonnage of 8,941 tons entered as against 112 with a tonnage of 7,916 tons, and 166 with a tonnage of 8,951 tons cleared, as against 118 with a tonnage of 8,521 tons in the previous year.

Of the 565 steam and sailing vessels that entered the ports of the Province from foreign ports during the year, 387 or 68 per cent. flew British colours. Of the 178 vessels flying foreign colours 55 were Dutch, 54 Japanese, 49 Norwegian, 6 Chinese, 3 Russian, 2 Swedish, 2 American, one each French, Greek, Italian, and Spanish, and 3 foreign native craft. In the previous year of the 421 vessels entering 325 or 77 per cent. flew British colours, and of the 96 flying foreign colours 40 were Japanese, 32 Norwegian, 19 Dutch, 3 Swedish and 2 Chinese. The number of arrivals of foreign vessels thus increased by 85 per cent., while the increases so far as the Dutch, Norwegian and Japanese colours are concerned were 189, 53 and 35 per cent. respectively. In the coasting trade 866 vessels, as against 1,271 in the previous year, flew British colours, and 98 as against 75 flew foreign colours. The number of native craft rose from 2,000 to 3,428. In the foreign trade of Rangoon 184 vessels entered under British colours as against 223, and 153 under foreign colours as against 89 in 1915-16. Of the latter 52 were Dutch as against 18, 49 Japanese as against 37, 36 Norwegian as against 32, 6 Chinese as against 2, and 3 Russian, 2 American and one each French, Spanish, Swedish, Greek and Italian, against none in the previous year. In the coasting trade of Rangoon 699 British vessels, including 166 native craft, and 122 foreign vessels, entered, as against 807 British including 109 native craft, and 87 foreign vessels in 1915-16. The foreign comprised 59 Dutch as against 29, 47 Japanese as against 54, 9 Norwegian as against 2, 4 Russian as against none, 2 Swedish as against 1, 1 American as against none and no Danish as against 1 in the previous year.

Commercial marine: wrecks and casualties.

77. During the year there were 9 accidents to shipping in the port of Rangoon as compared with 13 in the previous year. None was serious while only four occurred while the vessel was in charge of a pilot or assistant harbour master. It was not found necessary to take action against any of the officers concerned. A special court of enquiry was constituted at Rangoon under the Indian Merchant Shipping Act to investigate the cause of the stranding and total loss of the

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S.S. "Zoroastrian" on the 29th September 1916 in Nga Yot Bay, about 38 miles to the north of the entrance to the Bassein River. The court held that the stranding was due to an abnormal north-easterly current following on a cyclone, that the Captain was not guilty of negligence, but that the second officer, by not keeping a proper look-out, very materially contributed to the stranding, and recommended that his certificate be suspended for nine months. Shortly after the enquiry was completed the second officer met with an accident, being knocked down by a motor-car and having both his legs fractured above the knees. In these circumstances and in view of the fact that the court did not consider itself justified in suspending the certificate, the Lieutenant-Governor did not consider that the certificate should be suspended.

Government steamers and launches.

78. The Royal Indian Marine vessel, "Sladen" was laid up in Rangoon, to be utilized for service as examination ship, until February 1917, when she was taken for that purpose. The "Bhamo" carried by river about 2,600 troops and followers, besides women and children, convicts, transport animals, ammunition, specie, and 2,100 tons of stores. The total earnings fell from Rs. 2·19 lakhs to Rs. 34,388. Three steam-launches and 8 motor-launches were added to the Government flotilla during the year. The Government of India during the year impressed 1 steam-launch, 2 motor-launches, 1 steam barge, 2 dredgers, 2 flats and 3 terminal pontoons for service in Mesopotamia in addition to the 6 steam-launches, 1 steam-cutter, and 1 dredger and terminal pontoon impressed in the previous year. One motor-launch, being unserviceable, was sold. At the close of the year there were, in Upper and Lower Burma, 90 steam-launches, 2 steam barges, 21 motor-launches, 13 house-boats, 11 flats, 7 barges, 1 water-boat, 4 light-ships, 3 dredgers, 2 buoy-vessels, 2 mooring-boats, 3 cargo-boats, 1 pony-boat, and 1 rock-smasher. There were also 2 steam-launches under hire to Government during the whole of the year, and 1 motor-launch from September onwards. During part of the year 2 launches were taken away from the Districts to which they belonged for military patrol between the Hastings shoal and the mouth of the Rangoon River. The total earnings of Government vessels for the year amounted to Rs. 7·06 lakhs as against Rs. 6·52 lakhs in the previous year. The Police, Telegraph, Customs and other boats in the various Districts were in good condition and fully employed. One cutter of the Light-house Subdivision was swamped off Alguada Reef in May 1916. Eleven launches were docked at the patent slip in Mandalay. The wood and coal depôts continued to supply requirements and the arrangements carried out by the Forest Department for the supply of wood fuel were satisfactory. The value of the stores received in the store godowns at Rangoon, Mandalay and Bassein was Rs. 1·7 lakhs, and the value of stores issued Rs. 2·01 lakhs. The outturn of work at the Marine Workshop, Mandalay, was valued at Rs. 68,088 as against Rs. 66,093 in the previous year. The cost of repairs to vessels and works carried out at the Government workshop, Rangoon, amounted to Rs. 5·95 lakhs as against Rs. 3 lakhs in the previous year, the increase of Rs. 2·95 lakhs being due to repairs to a number of privately-owned launches employed on military duty, His Majesty's vessels patrolling the Bay of Bengal, to the fitting-up of vessels for Mesopotamia and also to work done in connection with the defence of Rangoon.

Marine works and surveys.

79. The suction dredger "Cormorant" was requisitioned by Government and despatched to Basra in May 1916. After her departure the Monkey Point channel showed signs of deterioration but opened up to the normal depth during the rainy season. In the dry season, however, the channel again commenced to silt up rapidly and it was decided to use the dredger "Pelican" to drag the channel during the ebb tides. This proved successful, as the channel gradually improved and a minimum depth of 14 feet of water was maintained through the dry season. The dredger "Frederick Fryer" was hired from Government and commenced dredging operations on the western approach to the Danidaw reach, but the apparent results did not come up to expectation. The paddle-steamer "Firefly" when not on other duty, was also employed towing a drag over this locality during the ebb tides. Every possible endeavour was made

to maintain a good depth of water in these channels during the absence of the "Cormorant," and with a fair measure of success. During the year however 64 vessels had, owing to insufficient water, to complete their loading below the Hastings, as compared with 33 in the previous year. Eleven vessels on arrival could not enter the harbour owing to insufficient water and were detained below the Hastings, as against 2 in 1915-16. The river bed in general remained normal throughout the year with the exception of Kamakasit shoal, which remains in a disturbed state but shows an improvement on last year's condition. The dredger "Hastings" dredged 83,600 tons during the year at the entrance to the Kanaungto Creek. Complete new surveys of the river bed from the harbour beacons, Syriam, to the Hmawun beacon, and from Elephant Point to Fairway buoy, were taken in hand and completed. The area was sounded, re-coastlined, all shore detail put in and corrected up to date, and the sheets newly plotted. Harbour works included the construction of a wharf at Pyapôn, the extension of and improvements to the Naukle wharf at Mergui, the completion of a screw pile jetty at Kangyidaung in the Bassein District, and the construction of landing stages at Thayagon and Thayaukmyaik in the Myaungmya District. Considerable progress was made on the construction of a jetty at Andrew Bay in the Sandoway District, and some piles were screwed and braced for the new landing stage at Pauktaw in the Akyab District. In the Tavoy District materials were collected for the extension of the landing stage at Kamyawkin, while the forwarding godown at Kyetsabyin jetty at Tavoy was extended.

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

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Agriculture.

Occupied and cultivated areas.

80. The occupied area of the Province in 1916-17 was 18,352,312 acres, the increase (116,977 acres) being slightly less than that of the previous year. The fallowed area, 3,937,786 acres, of which a little over one-sixth is in Lower Burma, was nearly 5 per cent. less than in 1915-16 and in all represents 21 per cent. of the occupied area. The cultivated area increased by 2 per cent. to 14,414,526 acres and the matured area by 549,231 acres or 4 per cent. to 13,744,966 acres. The gross cropped area, that is the cultivated area *plus* the area cropped more than once, expanded by 247,917 acres. The area cropped more than once has gone up by 53,605 acres to 626,553 acres, the most striking increase being of 18,319 acres in Pakôkku. Good late rains always stimulate second cropping on fields grown with early sessamum. The figures for the cultivated area, the gross cropped area, and for the matured area, are all higher than the similar figures for the Province in any previous year.

In the principal Lower Burma Districts, in which rice is the main crop, there was a total increase of 112,817 acres in the occupied area. While all the important Districts report an increase, the Irrawaddy Division was the outstanding contributor with a total increase of over 50,000 acres, largely due to revision of areas as a result of resurveys in Bassein and Myaungmya. Steady extension of cultivation was the cause of a notable increase in Pegu, while in Hanthawaddy the colonisation area of Kadônbaw was responsible for an increase of 4,000 acres. The

fallowed area showed no important increase except in the precarious flooded tracts of the Bassein District. In Hanthawaddy the cultivators' fears of floods between the Twante Canal and the Panhlaing River, was responsible for an increase of fallowing there. The area on which crops failed to mature was less by 83,142 acres than the similar area in the previous year. The decrease was especially noteworthy in Insein, Hanthawaddy and Ma-ubin. In Upper Burma the variation in the occupied area was negligible, but the matured area rose from 4,362,869 to 4,717,537 acres while the non-matured area fell from 690,671 to 572,168 acres. The fallowed area fell by 221,909 acres, there being a decrease in all the Districts except Shwebo, Thayetmyo and Katha. The cultivated area *increased* by 205,174 acres, there being a slight decrease in three Districts and a fairly evenly distributed rise in the others. The failed area was less by 130,064 acres than in the previous year. Only three Districts showed an increase in the failed area, the largest increase being in Sagaing with a total failed area of 85,737 acres. Shwebo was the District with the largest area, 114,015 acres, being less by 2,742 acres than the failed area in 1915-16. The activity of new settlers in the Namyin valley in the Myitkyina District, Gurkha settlers near Myitkyina and Shan-Chinese in Bhamo gives ground for hopes of considerable expansion in the north.

The area under rice was 10,569,821 acres, being 164,346 acres in excess over the corresponding area in 1915-16. The area under wheat was 47,580 acres. The fact that the area under this crop has doubled since 1913-14 points to a growing belief in its possibilities. In the year of report the area increased by 6,356 acres, two-thirds of which were in the Lower Chindwin District. Minbu, which grows the best wheat in the Province, is reported to contain little suitable soil in unirrigated areas. Experiments on a small scale in Tharrawaddy and Amherst may ultimately prove important. The area under millet, which has been declining since 1908-09 principally as a result of damage done by the *pwinbyu* parasite (*Striga lutea*), but also in part owing to economic causes, shows a slight recovery, the area under red millet being up by 10,705 acres to 462,880 acres, and that under white millet by 19,388 acres to 203,257 acres. The cultivation of red millet on a small scale in Minbu and Henzada is noted as having begun. There was practically no change in the area under early sessamum. The area under late sessamum rose by 17,765 acres to 361,242 acres. Groundnut did not recover from the set-back it received last year and the area cultivated is almost the same. High prices have continued to stimulate the expansion of the bean crop which has risen from 522,671 acres in 1914-15 to 662,869 acres in 1916-17. White beans, principally the small variety known as *pebyugale*, for which in the previous year prices ruled high, replaced red beans to a considerable extent. Good prices have helped the recovery in cotton but the increase in area of 36,000 acres to 223,401 acres has by no means brought back the figures to the level of former years. The tobacco area, which fluctuates mainly according to the rise of the river, increased by over 5,000 acres. Chillies and onions also have risen by 14,000 and 5,000 acres respectively, on account of steady demand and good prices. Sugar-cane shows a little improvement especially in Yamèthin, and this will doubtless be maintained when a sugar-factory, at present in process of construction at Kyidaunggan in that District, begins working. The area under rubber, 59,257 acres against 57,843 acres last year, shows hardly any expansion.

Area irrigated.

81. In the irrigated area the season was marked by the absence of serious floods and was on the whole distinctly more favourable than in either of the two previous years. In most Districts the rainfall was timely but there was a scarcity of water in Shwebo and Mandalay at the beginning of the season. In Lower Burma the irrigated area is small except in Toungoo and Prome and there was little variation in the figures except in Toungoo, where there was an increase of 27,295 acres, due to more accurate statistics under the new settlement. In Upper Burma, which has five-sixths of the irrigated area, there was no important decrease in the cropped area in any District, while large increases were recorded in Meiktila, Yamèthin and Minbu. The irrigable area rose by 58,343 acres to 1,691,674 acres and the gross irrigated area, which includes 31,459 acres cropped more than once has risen by 117,168 acres to 1,304,403 acres. Rice is the

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principal irrigated crop, with a gross area of nearly 1,242,000 acres, other crops, mainly sessamum, beans and peas, being responsible for less than 63,000 acres. No new works of importance were opened during the year, but many small works have been improved and extended and the number of wells used for the irrigation of crops like onions shows a steady increase. As regards further development, it is hoped that in Shwebo water will be available in 1918 for a limited area from the Ye-u Canal on which work is now proceeding. In Yamèthin, gauge-readings for an irrigation scheme at Nyaunggaing have been reported favourable, and in the same District a proposed work at Kabagyi, which would affect a considerable area, has been inspected and favourably reported on.

The Agricultural Department.

82. There was no change in the superior staff of the Agricultural Department during the year. The sanctioned appointments of third Deputy Director and of Agricultural Botanist remained vacant. Five more Agricultural Assistants were recruited during the year as well as a District Agriculturist to replace one who had resigned. The five new Agricultural Assistants entered on their training at Hmawbi. At the close of the year four of them went to the Agricultural College at Poona where they will undergo a three years' course in scientific agriculture. The fifth who had already passed a year at Poona was transferred to the experimental farm at Tatkon, along with the Assistant recruited in 1915-16, for instruction in the crops of the dry zone. It was found necessary to extend the period of instruction for District Agriculturists in Upper Burma from one year to eighteen months. In Lower Burma two Agriculturists who had completed their training were sent out to Districts. In the Northern Circle both those under instruction and those already appointed were taught by the Assistant Entomologist the more important insect pests and means of combating them. A Temporary Engineer was transferred from the Public Works Department and appointed Agricultural Engineer tentatively for one year. Nine cultivators nominated by co-operative societies were shown at Hmawbi, Mandalay or Tatkon the methods and implements in use on the farms and how a crop should be grown from pure seed with least risk of contamination. During their training they received stipends aggregating Rs. 917.

The total cost of the department for the year amounted to Rs. 2,49,204 and receipts amounted to Rs. 24,733.

Agricultural research.

83. Investigations to determine the most suitable varieties of the staple crops of the Province were continued during the year. Improved strains of a type of *ngasein* paddy, which has been multiplied for distribution in Lower Burma, were submitted to the judgment of the Chamber of Commerce, along with several new selections. Four, one of which has the additional merit of being a heavy-yielding strain, were pronounced well suited for milling for shipment to Europe, and these will be grown for issue as seed. There are now over five hundred types of paddy under examination at Hmawbi. In particular, hybrids raised from the crossing of the Burmese *letywezin* variety with an imported Java plant are being investigated in the hope of finding a quick-growing strain suitable for the higher lands which do not retain water well. In Upper Burma two short-lived types of Japanese paddy are being tried for the same purpose. Investigations into the *pwinbyu* pest (*Striga lutea*) of millet were persevered with, and an experiment showed that a second crop, sown after the first crop has been deliberately allowed to develop as much *pwinbyu* as possible and been cut down before the *pwinbyu* has seeded, will yield from a quarter to a half of the normal yield of fodder, whereas if the first crop is left to grow it is almost all killed by the parasite. Little success attended the experimental cultivation of several Indian and American varieties of millet on the Mandalay farm. Over two hundred types of sessamum were grown at Tatkon. These have been examined and classified and a selection of twenty-four has been made for trial on a larger scale and for analysis of oil-yield. Seven kinds of groundnut were tried on three of the farms in the dry zone. Two of these were condemned by the exporting firms to whom samples were submitted, for the reason that the proportion of husk to seed was too large. Experiments with the other five varieties will be continued to determine which contain most oil as

well as which can be most easily harvested. The seed of selected short-lived *wagale* cotton (*Gossypium neglectum*) issued from Tatkon was tested on the Taungtha seed farm, and found to maintain its high outturn of lint. A very little of the seed has now been distributed, and in addition the seed is being multiplied by one or two landowners in Meiktila and Myingyan under the supervision of the District Agriculturists. The outturn of lint was found to be 7 per cent. more than the average outturn. Experiments at Padu with white and yellow-flowered plants confirm the conclusion pointed to by previous experiments at Tatkon that the white-flowered give the heavier outturn of lint. The seed of the long-lived *wagyi* cotton (*Gossypium obtusifolium*) plant with a lint outturn of 45 per cent. which was isolated at Tatkon in 1915-16 did not prove fertile; what seed was reproduced is being sown out and a further attempt will be made to select strains with a high yield and a good ginning percentage out of samples furnished by cultivators in the Thayetmyo District. It is hoped that the crossing which has been successfully made of an imported Broach cotton with *wagyi* may produce a strain combining the finer and longer staple of the Broach with the greater lint outturn of the local variety. Experiments made with Buri and Egyptian cottons did not prove successful but further trials will be made with Cambodian cotton on the Allanmyo farm where it promises better than at Tatkon. Further investigations were made into the formation of the prussic acid constituent in the so-called Burma bean (*Phaseolus lunatus*). A strain of the speckled red variety (*pegya*) was grown which yields a very small amount of this acid, and an attempt is being made to obtain a similar strain of the small white variety (*pebyugale*). Twenty-three strains of bread wheat and 45 strains of macaroni wheat were under observation at the Hopin and Padu farms. Work was also done on the arhar dhall plant (*pesingon—Cajanus Indicus*), the field-grown pea known as *sadawpe*, also on safflower, linseed, guinea-grass and tobacco. Experiments proved that the water hyacinth is of no commercial utility. Experimental plots of jute are being grown at jails and elsewhere in the Delta. The Agricultural Chemist finished his inquiry into the Mandalay milk supply. The Imperial Silk Specialist visited Burma in September 1916 and on his advice a small farm for sericulture was opened at Amarapura in connection with the Saunders Weaving Institute. During the year experiments were made to determine the effect of different types of manure on the clay soil at Mandalay. Investigation of typical Lower Burma soils was continued. An examination was begun of the crabs and snails which cause damage to the rice-crop in Lower Burma. An experiment at Mandalay did not reveal any appreciable difference in germinating capacity between machine-threshed and bullock-trodden corn.

Seed distribution and demonstration.

84. During the year over 2,000 baskets of selected paddy-seed were issued from the Agricultural Station at Hmawbi and some 3,300 baskets from the Mandalay farm. The multiplication of pure cotton seed is not yet sufficiently advanced to admit of general distribution nor as yet have the kinds of groundnut most suited for cultivation been determined. The department in addition to providing seeds grown on its own farms also gave assistance to cultivators in procuring other seed for them. Thus 3,000 baskets of wheat were purchased and cleaned for co-operative societies in the Shwebo District. The Tatkon farm issued 50 baskets of small white bean in its neighbourhood and in Thayetmyo the District Agriculturist procured and sold over 100 baskets. Onion seed was obtained from India for growers in Kyaukse, and 48,000 setts of sugar-cane were distributed in the Môn Canal area where the District Agriculturist also helped to introduce a new variety of early sessamum. Little demonstration was undertaken during the year. An Agricultural Assistant was placed on special duty in the northern part of the Shwebo District, to show how wheat could be grown on the inundated lands along the Mu River. Towards the close of the year the services of a jute demonstrator with two skilled workmen were lent by the Government of Bengal, to teach methods of growing and retting. Agricultural implements to a value of Rs. 1,650 in the Northern and Rs. 2,900 in the Southern Circle were sold, the purchasers for the most part being Co-operative Credit Societies.

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Veterinary Department Staff and Veterinary School.

85. Excluding superior officers, the staff of the Veterinary Department at the close of the year consisted of 15 inspectors and 142 assistants in Burma proper as against 12 inspectors and 130 assistants twelve months before. There were also 2 inspectors and 19 assistants in the Shan States. The gross expenditure of the department was Rs. 2,86,756 as against Rs. 2,75,643 in 1915-16, the excess being due to the cost of the Stock-Breeding Committee. The Veterinary School at Insein had 59 pupils in attendance at the beginning of the year and 34 at its close. During the year 18 pupils passed the final examination. Six pupils were dismissed during the year, for misdemeanours of varying degrees of turpitude, but generally the conduct of the boys was good. Efforts to obtain a better class of student met with no more success than heretofore. At the veterinary hospital attached to the school the number of animals treated was 2,048, including 363 in-patients. The average number of animals treated daily continued to rise steadily and this year was 35·2 as against 29·03 in the previous year. In the laboratory a total number of 6,967 specimens were examined, of which number 3,813 were sent in from the Districts mostly by the District Veterinary Assistants. The stipendiary students doing a post-graduate course at Calcutta passed their second examination.

Cattle disease.

86. The year was remarkably free from cattle disease. The number of cattle dying from contagious diseases was 9,448, a slight advance on the 7,210 in 1915-16, which was the lowest figure ever recorded for the Province. Practically all the increase comes from Lower Burma. Foot-and-mouth disease was the main scourge and claimed a total number of 5,085 victims, 3,985 in Lower Burma and 1,100 in Upper Burma as against 1,242 and 540 respectively in the previous year. Mortality figures exceeding 500 were recorded in four Lower Burma Districts, Bassein, Myaungmya (principally in the Myaungmya Subdivision), Kyaukpyu, and the Salween Hill Tracts. Bassein, with 807 deaths, and Myaungmya, with 756, were the Districts worst affected. Upper Burma, with the exception of the Myingyan District, where 726 animals died, was during the year singularly free from foot-and-mouth disease, as indeed from all contagious disease. The number of deaths from rinderpest fell to 2,058 from 3,589 in 1915-16, the decrease in Lower Burma being from 2,507 to 1,488, and, in Upper Burma, from 1,082 to 570. Akyab District, with over 700 deaths, was the only District in Lower Burma to suffer to any marked extent. Diseases returned by the villagers as anthrax caused 2,305 deaths as against 1,839 in 1915-16, Lower Burma with a total number of 1,852 deaths being responsible for practically all the increase. The only severe outbreak was in the Wakèma Subdivision of the Myaungmya District where just over 600 head of cattle died. In the Southern Shan States the health of cattle was generally good, except in the North-Eastern Subdivision, where rinderpest caused 2,200 deaths. Foot-and-mouth disease though widespread was nowhere severe. In the Northern Shan States, contagious diseases prevailed generally throughout the year. Only one State enjoyed comparative freedom from disease. Rinderpest was the malady that caused by far the largest number of deaths, but outbreaks of foot-and-mouth disease and anthrax also occurred. Preventive inoculation against rinderpest was practised in six Districts to combat 28 separate outbreaks. Of a total number of 3,688 animals so inoculated only 21 are reported to have died, the number of deaths among uninoculated cattle being 136. The number of cattle inoculated in the previous year had been 6,814. The number of animals treated by the department for contagious diseases was 76,051 as against 50,725 in 1915-16, while the number treated for non-contagious diseases fell from 44,036 to 41,803. The recorded cattle-mortality from non-contagious diseases was 69,075 in Lower Burma, and 19,661 in Upper Burma, as against corresponding figures of 60,891 and 18,561 in the previous year. In Upper Burma the registration of cattle-mortality was applied to the Yamèthin District. During the year there were again outbreaks of contagious disease due to importation from across the frontier. The rules for the segregation of cattle in case of an outbreak of contagious disease were generally observed, the villagers recognizing that segregation is the most effective means of coping with such outbreaks.

Stock.

87. A special census of agricultural stock was made during the year by the Land Records staff at the instance of the Stock-Breeding Committee. The total number of cattle, of which nearly half are bulls and bullocks was found to be over 5 millions, while there were $1\frac{1}{4}$ million buffaloes. Bulls and bullocks were enumerated separately and it was found that in the Province taken as a whole there are, roughly, three bullocks to every bull. The preponderance of bullocks is more marked in the rice-growing Lower Burma Districts, while castration is less practised in the Arakan Division than anywhere else in the Province. The year was good for live stock and the number of deaths from infectious or contagious diseases was small. The cultivators are taking more interest in segregation as a means of preventing the spread of disease and the existence of cattle insurance societies is having a good influence. As regards oxen there was a decrease in the number of cows from 1,524,556 in 1915-16 to 1,362,724 in the year of report. The reduction is most marked in Sagaing, Myingyan, Yamèthin, Shwebo and Meiktila. But the number of bulls and bullocks increased from 2,053,166 to 2,401,316, while there were 1,258,615 calves as against 1,170,200 in the previous year. The number of male buffaloes rose from 380,387 to 389,076, that of female buffaloes from 412,941 to 434,749. The increase was more marked in young stock, the number of buffalo calves rising from 293,062 to 359,290. No change worthy of note took place during the year in the number of horses, goats or sheep. The number of pigs in the Province decreased by 14 per cent. The decrease has been attributed to the high price of fish in Upper Burma, to a more general consumption of pork as a result of a popular preacher having reprobated the use of beef as an article of diet, and to the spread of a popular belief that a tax was going to be imposed on pigs. But the decrease is by no means universal or evenly distributed. It is significant that in the tract including the contiguous Districts Lower Chindwin, Sagaing, Myingyan, Magwe, Meiktila and Yamèthin the number of pigs has decreased by over 50 per cent. since 1914-15.

In accordance with a resolution moved at a meeting of the Burma Legislative Council in March 1916, which resolution was accepted by the Local Government, a Committee was appointed to report on the general conditions prevailing in Burma in regard to the breeding, the tending, the sale and the supply to non-breeding areas of cattle (oxen and buffaloes), ponies, pigs, goats and sheep and to make proposals for the improvement of these conditions with special regard to the advisability of introducing co-operative methods. The Committee's report was not submitted till after the close of the year.

Agricultural loans.

88. Exclusive of advances to Co-operative Societies, the loans made by Government to agriculturists during the year amounted to Rs. 12·55 lakhs while at the beginning of the year Rs. 13·95 lakhs were outstanding; thus the total amount on loan was Rs. 26·50 lakhs or Rs. 1·03 lakhs more than in 1915-16. The sum due for collection during the year was Rs. 16·44 lakhs and the sum collected was Rs. 12·08 lakhs. The amount suspended by competent authority, Rs. 1·14 lakhs, was less by Rs. 37,705 than in the previous year, while the sum overdue, Rs. 2·73 lakhs, was Rs. 10,593 more; Rs. 856 were remitted as against Rs. 712 in the previous year. The balance outstanding at the end of the year, Rs. 14·41 lakhs, was Rs. 46,658 more than in 1915-16. Advances and collections show some striking differences; of the total amount on loan, four Districts, Kyaukpyu, Prome, Yamèthin and Shwebo, account for over one-third; and of the balance outstanding at the end of the year, five Districts Kyaukpyu, Prome, Shwebo, Meiktila and Yamèthin were responsible for just half. The amount suspended by competent authority fell by Rs. 37,705, but the amount overdue rose by Rs. 10,593. The heaviest suspensions were in Upper Burma, where Shwebo, Kyauksè and Yamèthin had each to suspend payment of over Rs. 13,000. In Lower Burma, Kyaukpyu and Ma-ubin alone had more than Rs. 7,500 suspended. Three Districts had over Rs. 20,000 overdue, namely Kyaukpyu Rs. 97,319, Yamèthin Rs. 43,925, and Ma-ubin Rs. 20,015. Substantial recoveries from Kyaukpyu cannot be looked for until the return of better times. Financial stringency accounts for the large suspensions in Yamèthin and Ma-ubin. In most Districts the loans are used for buying plough cattle and seed,

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Cases of misappropriation were few. In Amherst a borrower was personated and a loan taken in a false name. In Pakôkku a case of forgery in connection with loans in 1913-14 came to light, and a headman and two villagers were convicted. In Mônywa a case in which a headman is alleged to have induced cultivators to borrow and share the proceeds with him was still under enquiry at the end of the year. Under the Land Improvement Loans Act Rs. 15,650 were advanced during the year. A sum of Rs. 31,204 was outstanding, so that the total sum advanced at the end of the year was Rs. 46,854. Of a total of Rs. 15,157 due for collection, Rs. 12,433 were collected, Rs. 1,685 remitted, Rs. 1,389 suspended by competent authority and Rs. 1,175 were overdue. The loans are used mainly for constructing dams, small canals, and tanks for irrigation and are practically confined to Upper Burma, where Myingyan in the year of report took three-fifths of the whole amount advanced. Remissions were due in Amherst to the failure of a cotton-growing scheme begun in 1904 and in Yamèthin to the failure of a dam and the taking over of a private work by the Irrigation Department. The interest on loans collected during the year was Rs. 1,22,112 out of which the interest charges of the Government of India at $3\frac{1}{2}$ per cent. were Rs. 74,186. As Rs. 2,541 were remitted, the profit to the Local Government was Rs. 45,385.

Protection from floods.

89. Embankments constructed for the protection of cultivation are maintained by the Irrigation Branch of the Public Works Department. The principal works lie along the course of the Irrawaddy River in Lower Burma, but there are works on a smaller scale along the banks of the Sittang River. For the main works on the Irrawaddy, both capital and revenue accounts are kept, but the works on the Sittang River and the Ma-ubin Embankment in the Ma-ubin District have revenue accounts only. The capital outlay on embankments for which both capital and revenue accounts are kept was Rs. 1·57 lakhs, which raises the total capital outlay to Rs. 41·88 lakhs. Receipts increased from Rs. 14·90 lakhs to Rs. 15·99 lakhs and working expenses fell from Rs. 2·21 lakhs to Rs. 2·18 lakhs, profits thus rising from Rs. 12·68 lakhs to Rs. 13·81 lakhs and representing a return of 32·97 per cent. on the capital outlay, as against 31·47 per cent. in the previous year. The area protected increased from 496,105 to 498,462 acres. The embankments for which only revenue accounts are kept show an increase in the area protected from 197,321 to 198,921 acres. Revenue receipts were Rs. 6·72 lakhs as against Rs. 6·64 lakhs in the previous year, working expenses were Rs. 1·02 lakhs as against Rs. 1·75 lakhs leaving a profit of Rs. 5·71 lakhs as against Rs. 4·89 lakhs. On the main Irrawaddy, it was decided not to carry the extension of the Myanaung bund beyond Ludawzu, which point it had reached in the previous year. Earthwork costing Rs. 25,482 was done at the Yandoon Island Embankment. The levels of various portions of the main bunds were restored in places where there had been sinking. Work was continued at the Moyingyi Extension bund in the Pegu District. The bund had been partly made in 1915-16 but had sunk all over and been breached in many places. The bund was not completed during the year, a length of some 7,000 feet still remaining. The expenditure on this bund now amounts to Rs. 1·09 lakhs. Some low parts of the Moyingyi-Zwebat bund were raised to the proper level. The work of metalling the Sittang bund through important villages was continued and completed. A scheme to train the Yenwe stream at Pyuntaza was sanctioned and work put in hand during the year, a sum of some Rs. 76,000 being expended. The surveys for the Pyuntaza Plain Drainage scheme were completed during the year at a total cost of Rs. 31,288.

Weather and Crops.

Character of the seasons.

90. The monsoon in Lower Burma commenced in good time, and, as the rainfall was neither greatly above nor short of the normal in most Districts and was also on the whole well distributed, conditions were favourable for the main rice crop. Breaks in the monsoon long enough to cause damage were of little note except in the Tenasserim Division, floods were fewer and less serious than of late years, and there was good harvest weather. In Upper Burma where a farmer

hardly looks for a succession of good seasons outside the irrigated area, the year proved on the whole fair. The early rains were disappointing in the north and affected the supply of water for irrigation, but generally the conditions were not unfavourable ; as always the middle rains were uneven, but few Districts suffered badly and except for damage here and there to early sessamum through drought in September, and to other crops by heavy rains, dry crops were successful. There was little serious damage and although the high rise of the Irrawaddy and Chindwin in October caused destruction in riverine and island lands, the damaged areas were partly resown with dry crops.

Outturns and prices.

91. The total estimated outturn of unhusked rice for the Province was 6,913 000 tons as against 6,657,000 tons in the previous year. Most of the great rice-growing Districts reported better outturns than last year, the improvement being most conspicuous in Pyapôn and only four Districts, Akyab, Bassein, Amherst and Thatôn showed a considerable decline. The yield throughout Lower Burma taken as a whole was fully 97 per cent. of the normal yield, as against 95 per cent. last year. The total amount of rice available for export was estimated to be 2,700,000 tons. The price of unhusked rice in Rangoon was fairly steady at Rs. 120 to Rs. 125 (per hundred baskets of 46 lbs.). A drop in November was followed by a sharp rise to between Rs. 130 and Rs. 140 for the old crop at the end of December. The market for the new crop opened at Rs. 98 at the beginning of January but cultivators held up their paddy in the hope of a rise and the price rose steadily to Rs. 120 towards the end of March. By the middle of April there was a sharp drop to Rs. 105 and thereafter until the end of June Rs. 100 represented a more or less nominal market price. In Bassein a fall on the coming in of the new crop from Rs. 100 to Rs. 95 was followed by a reaction at the end of January and prices rose steadily to Rs. 125 at the end of March and beginning of April. In Moulmein Rs. 100 was the prevailing price till the middle of February when it rose sharply to Rs. 115 which level was maintained for some time. Those of the cultivators, and they were perhaps in the majority, who sold in February or March obtained in most places from Rs. 110 to Rs. 120 or even more, for their produce. In Bassein, which may be taken as a typical rice District the average price may be taken as Rs. 111 as against Rs. 97 and Rs. 91 respectively for the two previous years. At the close of the year of report considerable stocks were held in the Districts by speculators, while supplies in Rangoon were ample. It was an interesting problem to what extent and at what price holders would be able to dispose of these stocks. The governing factor was of course the supply of shipping. Substantial purchases had been expected on behalf of Great Britain and her Allies, for which of course freight would be provided, and it was known that there would be a large demand if ships were available, from Ceylon, the Straits and Java. But it seemed improbable that the hopes of the speculators would be realized. The price of sessamum was much above normal in the two Districts most concerned, Magwe and Myingyan, where sessamum is produced for sale. The outturn thoroughout the Province was considerably better than in the previous year. The price of groundnut in Pakôkku and Myingyan was above the previous year's price but in Magwe the price fell slightly. The outturn was above the normal in practically all the Districts in which the crop is important. Cotton realized better prices this year in all the four main cotton-producing Districts, Thayetmyo, Sagaing, Meiktila and Myingyan, the rise varying from 46 per cent. to 78 per cent. above the previous year's prices. In Myingyan the highest price paid was Rs. 45 per 100 viss, which is a record. The area under cotton in the Province had increased by 27 per cent. in response to the improvement in prices in the preceding year. The yield was much better than in the previous year, but was still a little below the normal. The large demand for the small available supply of white beans for export led to much speculation. Prices in Rangoon for the previous season's crop ruled from Rs. 600 to Rs. 750 and in October touched Rs. 800 per hundred baskets. This had a striking effect in the bean-growing Districts. Cultivators extended cultivation, paying in places as much as Rs. 9 to Rs. 10 a basket for seed, traders and brokers were eager to get an option on the crop, and much was bought before the crop was harvested. When the new crop came in further speculation ensued, and prices ranged from

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Rs. 550 to Rs. 725 during the remaining months of the year of report. Generally white beans were from two to three times their normal price but most of the extra profit has gone to the speculator. Speculation in Burma beans was not confined to the Province and was the cause of a discreditable profiteering scandal in England during the year.

Co-operation.

Administrative and General.

92. There was no great expansion in 1916-17 in the area in which co-operative societies are at work. In Upper Burma the first union was registered in the Magwe District, and in the Pakôkku and Myingyan Districts, the movement spread into Townships hitherto untouched. Applications were also received from new areas in the Katha District. In Lower Burma the reorganisation of the staff on the lines adopted in the previous year in Upper Burma, was practically completed and the administrative charges of this portion of the Province so arranged that the future expansion of co-operation into new areas can take place without unduly burdening the Government auditing staff. Additional staff was sanctioned during the year to enable the new system to be fully adopted in Lower Burma and a more effective distribution of work to be arranged in Upper Burma. Three new Assistant Registrars and two new Junior Assistant Registrars were appointed during the year in addition to two such officers specially deputed to colonization work. At the end of the year there were six Assistant Registrars and 27 Junior Assistant Registrars. During the latter part of the year two officers of the Burma Commission were employed in the department as colonization officers.

The co-operative movement continued to progress during the year, at the close of which there were in all 2,575 societies of all sorts with a total membership of 61,105. The total working capital of all classes of societies at the close of the year was Rs. 1,40·68 lakhs of which, however, Rs. 45·69 lakhs is counted twice. During the year co-operative societies did excellent service in connection with the collection of War Loan subscriptions. The corporate subscriptions of societies amounted to Rs. 4·68 lakhs. In addition to this they provided facilities enabling non-members to subscribe to the War Loan and by these means a sum of Rs. 5·98 lakhs was collected, mostly composed of sums of under ten rupees.

Unions and Central Banks.

93. The number of unions which was 112 in 1914-15 and 189 in 1915-16 increased to 207 in the year of report. The Unions did excellent work as propagandists of co-operation. Their work in valuing the assets of affiliated societies, determining the amounts for repayment, and fixing the maximum limits of borrowing for the year has been, in the great majority of cases, carefully and satisfactorily done, and the practical ability and public spirit of the leading men show that there is no danger of future expansion being checked through the lack of capable leaders. All Unions however have not reached the same high standard. In one Union serious misappropriation took place. In several others the Chairman and other leaders are careless, slow to realize their responsibilities, or unduly regardful of their own personal interests. The main cause of existing defects in Union administration is the Burmese failing of undue disinclination to deal with the faults and misdemeanours of others. The Upper Burma Central Bank had a successful year in spite of the depreciation of its securities owing to the prolongation of the war. The paid-up share capital increased from Rs. 2·28 lakhs to Rs. 2·51 lakhs, loans to banks and societies from Rs. 21·47 lakhs to Rs. 30·70 lakhs and repayments of loans and deposits from Rs. 12·06 lakhs to Rs. 19·09 lakhs. The total amount of loans due from banks and societies was Rs. 39·25 lakhs as against Rs. 27·89 lakhs in the previous year. Loans and deposits from individuals rose from Rs. 51·07 lakhs to Rs. 71·42 lakhs. After setting aside Rs. 40,257 to meet depreciation, the Bank has been able to increase its Reserve Fund from Rs. 58,007 to Rs. 84,926, and its Special Reserve for bad and doubtful debts from Rs. 4,500 to Rs. 15,000, while at the same time paying a dividend of 5 per cent. These additions to reserve were made possible by the extra commission of one per cent. charged on all loans during the year. The Bank has continued to hold the fluid resources of the whole movement and the standard recommended by the Committee on Co-operation has

been fully maintained throughout the year. The demands upon the funds of the Bank owing to the expansion of the movement were in excess of the money available in spite of an increase of Rs. 5½ lakhs in the fixed deposits received. The Bank took a prominent share in the collection of War Loan subscriptions by societies, a total sum of Rs. 10,65,400 being invested through its agency. Repayments from societies were not so large as in the previous year but reached the satisfactory proportion of 25 per cent. to the loans issued. The three District Central Banks have improved their position during the year. Their aggregate working capital increased from Rs. 7·52 lakhs in the previous year to Rs. 10·88 lakhs, the paid-up share capital from Rs. 1·07 lakhs to Rs. 1·36 lakhs and loans and deposits from individuals received during the year increased from Rs. 1·47 lakhs to Rs. 6·36 lakhs. Loans made during the year were Rs. 6·53 lakhs as against Rs. 5·08 lakhs, repayments of loans were Rs. 3·19 lakhs as against Rs. 2·19 lakhs while the amount of loans due increased from Rs. 7·60 lakhs to Rs. 10·95 lakhs.

Agricultural Credit Societies.

94. Agricultural credit societies, which at the end of 1914-15 numbered 1,252, and a year later 1,685, numbered 1,934 at the close of the year of report. The corresponding increases of membership were from 30,130 to 36,494 to 42,877. The average number of members per agricultural society, which in the previous year fell from 24 to 21 rose to 22 in the year of report. The average loan per member in Agricultural Credit Societies is Rs. 155. The progressive increase is due to the growth of co-operation in Lower Burma, where much larger loans are required than in Upper Burma. Thus in Shwebo the average loan is Rs. 100 and in Pakôkku is under that figure, whereas in Pegu the average is Rs. 247 per head of membership. The expansion during the year of report was entirely due to propaganda by the existing Unions and would have been greater but for a shortage of the funds in the Upper Burma Central Bank, which, though increasing by five lakhs of rupees, were inadequate to meet all the demands made on them. The progressive rise in the standard of efficiency of societies continued during the year and the majority of faults in their working that came to light during the year were due to ignorance and incapacity and a reluctance to incur the odium of bringing faults to light, rather than to more serious causes. The registration of 34 societies was cancelled during the year. The progress of liquidation was hampered by the adverse conditions created by the prolongation of the war. Court sales rarely produced a reasonable price for the assets sold, and in many cases the liquidator wisely allowed extensions of time in preference to selling up the *ex*-members' property at a heavy loss. The weakest spot in the movement continues to be the Yamèthin District. The worst societies are however slowly being liquidated and several efficient Unions are making their appearance. The societies in the Mahlaing Township of the Meiktila District also leave something to be desired. In this case their comparative inefficiency is largely due to a succession of poor seasons. The classification by Registrars on audit resulted in 44 societies being classed A, 208 as B and 344 as D. The remainder were classed C or are of too recent formation to be suitable for classification. The proportion of A and B societies to the total number of Agricultural Credit Societies is the same as last year, namely 13 per cent., while the proportion of D societies has fallen by one from 18 to 17 per cent.

Colonization areas.

95. Work was continued during the year in five special areas in which land is being colonized under the auspices of the Co-operative Department. In the Môn Canals area in Minbu the year was the fifth year of the existence of the societies. The harvest was good and the only untoward incident was the collapse of the paddy market in April. In spite of this, repayments were not less nor later than in the previous year. The nett indebtedness to Government and to the local Co-operative Bank at the close of the year was Rs. 126 per head of membership as against Rs. 130 twelve months earlier. There is no tendency for colonists to part with their holdings. There has been some improvement in the working of the societies, an improvement in account-keeping rather than in management and business methods. The year was the second year of the societies at Kadônbaw in the Hantha-

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waddy District. For the second year co-operative sale of the paddy crop took place. Satisfactory prices were realized, some 170,000 baskets of paddy fetching over two lakhs of rupees. Eight cattle-purchase societies were formed among the 13 Kadônbaw societies. Over 600 head of cattle were purchased by buyers sent up to Upper Burma and delivered to members at prices several rupees per head lower than the current local rates. A review of the financial position showed that it is probable that the indebtedness of the societies will continue to increase until the end of 1918-19 and will thereafter gradually diminish. The necessity of more liberal financing was also proved, as at present the colonists are compelled to take advances at high rates of interest from local money-lenders to enable them to make the necessary cash advances to their ploughmen during the rains. Government loans to societies increased on this account are estimated to reach a maximum of nearly Rs. 1,000 per member or about Rs. 30 per acre at the end of 1918-19, which will be the fourth year of the societies. During the year nine Credit combined with Tenancy Co-partnership societies formed on the Kadônbaw model were created in parts of the Yitkangyi Forest Reserve and in the Singyun Island in the Pegu District. The land was surveyed and demarcated and the colonists settled thereon in March. The four societies near Ela in the Yamèthin District are not flourishing. Two of them are in a hopeless, one in a parlous condition, only one can be regarded as a normal society and even its condition is not altogether satisfactory. In the Namyin valley in the Myitkyina District the work of restoring the existing societies to a sound condition and of colonizing the large waste spaces that remain was proceeded with under the charge of a special colonization officer. In the northern end of the area a block of 18,000 acres was reserved for colonization by soldiers of the Indian Army after the war. From the Nampadaung stream which is the southern boundary of that block to the Katha District border the whole valley is now being treated on colonization lines. In the southern portion of the colonization area most existing villages already possessed societies included in the Hopin Union. These societies were enlarged by the admission of new members, the financial position of all members was investigated, and existing outside debts as far as possible paid off with society money. The result is a great improvement in the general financial position. The worst of the Indian money-lenders who operated in the valley, have, on being approached by the District authorities, agreed to bring their operations there to a close, a decision doubtless expedited by the murder of one of their number by an Indian debtor from whom he was demanding payment of arrears. In the northern portion of the colonization area a new Pinbaw Union was formed including two societies already in existence and 16 new societies. The new societies had a total number of 361 members and the average loan granted was Rs. 300. In all 4,500 acres of waste land were allotted to old and new members. The colonists form a heterogenous company. Nearly one-half of them are Little Shans. The others comprise Shans proper, Maingthas, Burmans, Kadus, Chins and Kachins with two Manipuris and one Karen.

Other Societies.

96. There has been a revival of interest in urban co-operation during the year. Societies have increased from 46 to 54 in number, the membership has risen by 42 per cent. and there has been a considerable advance in efficiency. In Rangoon the societies in the large Government offices had a successful year. The only setback in a year of otherwise very satisfactory progress was the embezzlement of a very large sum of money by the Secretary of the Myanaung Urban Society. The Secretary was convicted and sent to prison for six months. A special Assistant Registrar for Urban Societies was appointed during the year.

Cattle insurance societies increased from 305 to 324 during the year and the membership from 5,045 to 5,248. The smallness of the increase is due to the poor season in several parts of the five Districts to which these societies are confined. Owing to deaths having been very few in the previous year, there was a tendency to regard the premium as too high. In the year of report deaths were more numerous and the advantages of insurance have thereby been made more manifest. A total number of 9,135 animals was insured for a total value of Rs. 3·05 lakhs as against 7,929 animals for Rs. 2·87 lakhs in 1915-16. A sum of

Rs. 15,758 was collected as premia as against Rs. 9,737, the number of deaths rose from 75 to 146 and payment of claims rose from Rs. 685 to Rs. 3,517. The Central Cattle Re-insurance Society insured 6,388 animals for Rs. 1·43 lakhs as against 6,209 for Rs. 1·13 lakhs in the previous year. A sum of Rs. 7,656 was received as premia as against Rs. 4,022. Deaths rose from 37 to 146 and Rs. 1,144 was paid in claims as against Rs. 247.

There were 40 sale societies as against 18 in the previous year. The majority are temporary institutions which exist only during the particular season in which they are in operation, and this lack of continuity hinders the development of administrative skill and causes the societies to rely too much on the Government staff. The societies, however, are slowly forming a connection with the Supply and Transport Corps and other large purchasers.

Horticulture.

Horticultural Societies.

97. The Agri-Horticultural Society of Burma, with headquarters and gardens in Rangoon, is the only society of its kind in the Province. During the year the membership of the Society was 221, as against 223 in the previous year. The revenue account for the year showed a loss of Rs. 797 as compared with a profit of Rs. 380 in the previous year. Receipts rose from Rs. 39,552 to Rs. 40,901 and expenditure from Rs. 39,172 to Rs. 41,698. Owing to the war no show was held in 1916, but the sale of plants, flowers and seeds to members increased and stocks were maintained.

The Tenasserim Agri-Horticultural Society is now defunct. It is reported to have died a natural death "sometime in 1914."

Forests.

Forest reserves, unclassed forests, settlement, demarcation, survey and working-plans.

98. The aggregate area of forest reserves in the Province at the beginning of the year was 18,282,427 acres. During the year an area of 311,201 acres was reserved, 3,833 acres were disforested, and recomputation of areas having shown an increase of 40,868 acres, the aggregate area at the close of the year was 18,630,663 acres, or 29,110 square miles, of which 1,230 square miles were subject to the practice of shifting cultivation. The estimated area of unclassed forests at the beginning of the year was 72,803,396 acres, the gains and losses during the year were respectively 22,961 acres and 1,372,245 acres and the estimated area at the close of the year was 71,454,112 acres or 111,647 square miles, of which 9,712 square miles are estimated to be without forest growth. The area undergoing settlement with a view to reservation at the commencement of the year was 945 square miles. An area of 699 square miles was taken in hand during the year. An area of 488 square miles was finally settled, and at the close of the year the area in process of settlement was 1,107 square miles. The length of forest reserve boundaries demarcated for the first time was 366 miles, and the total length of the boundaries of the permanent reserves was 21,079 miles, of which 17,452 miles are artificially marked boundaries. During the year 2,508 miles of boundaries were repaired as against 2,488 miles in the previous year. No. 11 Party of the Survey of India made a detailed survey on the scale of one inch to the mile of part of the Auckland Bay Reserve in the South Tenasserim Division. The area surveyed was 71·16 square miles. A detailed survey was also made of the Sandawut Reserve. No. 11 Party also completed the detailed survey on a scale of two inches to the mile of part of the Yeyaman Reserve in the Meiktila Division. The total area surveyed during the year was 177·75 square miles. No. 10 Party of the Survey of India completed the detailed survey of the Mokso Extension Reserve in the Myitkyina Division of the Northern Circle. The area surveyed during the year was 59·8 square miles. Working-plans were sanctioned for the Namtu, Nama, Tonglong, Panghsa, Tunpye and Tawnghke Reserves in the Mandalay Division, the total area affected being 128 square miles. Working-plans were sanctioned also for certain reserves in the Yaw Division, the area affected being 493 square

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miles. Working-plans for four other areas were in various stages of preparation. There was no considerable deviation from working-plans during the year, except that in certain reserves in the Tharrawaddy and North Toungoo Divisions the control of exploitation was practically suspended in order that the supply of timber for military purposes might not be hampered.

Protection of forests.

99. The number of offences against forest rules rose from 5,667 in 1915-16 to 6,306 in the year of report. Cases of unauthorized fellings or removals increased from 3,910 to 4,307 and cases of unauthorized grazing from 306 to 351. During the year 1,144 cases involving 2,153 persons were decided in the courts, and convictions were obtained in 1,002 cases (87·6 per cent.) against 1,803 persons (83·7 per cent.). Forest Officers compounded 4,851 cases involving 6,814 persons for a total sum of Rs. 54,739, an average of Rs. 11·3 per case, and Rs. 8 per person. Lessees and purchase-contractors paid Rs. 5,322 in fines for breaches of agreement. Government contractors were fined Rs. 690. The area over which protection against fire was attempted was reduced during the year by 132,158 acres and totalled 1,583,178 acres, of which 1,527,276 acres or 96·5 per cent. were successfully protected. The average cost of protection per square mile was Rs. 46 as against Rs. 43 in the previous year. Of the total area of reserved forest, 77·5 per cent. was closed to all cattle throughout the year, 14·5 per cent. was open to all animals except browsers during part of the year and 7·2 per cent. during the whole year. The number of cattle impounded was 4,918 as against an average of 3,549 for the previous triennium. Damage was done by lessees' elephants in Thayetmyo, Nyaunglebin and Minbu Divisions, and by wild animals in numerous localities.

Improvement of forests.

100. Expenditure on new works amounted Rs. 97,894, as against Rs. 78,333 in the previous year. The amount spent on new buildings declined from Rs. 46,793 to Rs. 38,160 and that on new roads increased from Rs. 25,063 to Rs. 54,707. In the Plains Reserve of the Tharrawaddy Division some 5½ miles of laterite roads were constructed in order to facilitate extraction of timber required for military purposes. The total amount expended on repairs to existing works was Rs. 1·14 lakhs, as against Rs. 1·21 lakhs in the previous year. Expenditure on repairs to buildings increased from Rs. 52,190 to Rs. 54,430, and that on repairs to roads decreased from Rs. 55,898 to Rs. 46,803. Lessees of forests report that they expended during the year a sum of Rs. 1·69 lakhs on communications and buildings. No alteration occurred during the year in the area of the regular plantations for the artificial reproduction of teak. The area of *taungya* (hillside clearing) plantations gained 983 acres by new planting and areas aggregating 610 acres were abandoned as failures. The area devoted to other forms of artificial reproduction was increased during the year by 1,596 acres, while 1,928 acres were lost by recomputation and 617 acres abandoned as failures. The cost of new plantations during the year was Rs. 7,848 and of upkeep Rs. 31,624, as against corresponding figures of Rs. 14,264 and Rs. 21,962 in the previous year.

Exploitation of timber.

101. The number of marketable trees girdled, felled outright or marked for green felling was 212,623. This is more than 7,000 in excess of the number in any previous year and exceeds by over 100,000 the number obtained as recently as 1910-11. The quantity of teak extracted by Government agency was 78,363 tons. The quantity sold by auction at the Rangoon Depôt was 20,766 tons as against 15,642 in the previous year. The average price was Rs. 59-8-4 as against Rs. 50-6-3 in the previous year. As the quality of the logs was much the same as in 1915-16 the increased sales and better prices are due to a genuine improvement of the market which is still, however, affected by lack of freight. The quantity of teak extracted by lessees was 313,660 tons, an increase of 72,177 tons, on the figures of the previous year. The quantity of reserved timber extracted by purchasers increased by 17,031 tons to 86,682 tons and of unreserved timber by 47,209 tons to 207,523 tons. The outturn of fuel increased by 94,928 tons to 727,201 tons, mainly owing to increased consumption of firewood by the Burma

Railways Company and by the Irrawaddy Flotilla Company, as a result of difficulty in obtaining coal. The value of forest produce granted free fell from Rs. 2·02 lakhs in 1915-16 to Rs. 1·66 lakhs.

Finance.

102. The financial results are noticed in Chapter V in the section entitled "Revenue and Finance other than Imperial."

Mines and Quarries.

The Indian Mines Act.

103. There was a marked increase in mining activity during the year of report in the Tavoy, Mergui and Thatôn Districts, where the wolfram and tin mining industries expanded rapidly. The number of registered mines in the Tavoy District increased during the year from 68 to 106. In the Mergui and Thatôn Districts a number of mines are approaching the stage of registration. One new mine was opened in the Ruby Mines District during the year. In Tavoy the activities of the District officials more than kept pace with the growth of the mining industries. During the year 130 inspections were made, including inspections made by Government medical officers. In other Districts inspections were made as usual. The Tavoy Chamber of Mines, which was constituted in the previous year, includes representatives of practically every firm engaged in mining and during the year rendered valuable assistance. During the year the general health of employés in mines was on the whole good. The only exception was in the low-lying parts of the Tavoy District where during the months of March, April, and May malarial fever proved a serious scourge. The fact that the fever was less prevalent after the vegetation had been cleared from areas newly opened up justifies the expectation that as clearings are further extended the improved medical facilities which now exist will be sufficient to cope with this malaria. New hospitals and dispensaries have been provided at several of the larger mines and the supply of medicines in common use is now adequate. Wages remained at the same level as in the previous year. Chinese coolies in Tavoy still receive Rs. 1-12-0 per diem. Recently imported Indian coolies receive a monthly wage of from Rs. 12 to Rs. 15. The "tribute" system, whereby the mine-owner purchases from the labourer at a fixed price all the ore produced by the latter, continued in operation in the Tavoy, Mergui and Thatôn Districts. There was no considerable variation in the number of women and children employed in mines. In the Tavoy District 17 women and 1 child were engaged in under-ground work and the conditions of their employment were satisfactory, save in one instance in which it was necessary to warn the mine-owner. Twenty fatal accidents occurred during the year, as against nine in the previous year. The chief factor in causing the increase was the bursting of a dam in the Tavoy District, whereby nine coolies were drowned. A full inquiry was held and steps were taken to ensure a closer supervision over the construction and maintenance of such works in future. Two deaths resulted from the careless handling of dynamite. All the other fatal accidents, except one, occurred in the Tavoy District, and were due to landslides for which the negligence of the victims themselves was mainly responsible. There were no prosecutions under the Act during the year.

New concessions.

104. During the year 1916 the number of new applications for prospecting licenses on which orders were passed was 645. Of these 271 were granted, 213 refused and 161 withdrawn. In the previous year the number dealt with was 293 of which 147 were granted, 100 rejected and 46 withdrawn. In addition to new applications, orders were passed on 104 applications for renewal of prospecting licenses, the number granted being 82, while 14 were refused and 8 withdrawn. Of 27 applications for mining leases, one was granted, 14 refused, and 12 withdrawn. In the previous year the number of applications dealt with was 17. At the end of the year 138 applications for prospecting licenses and 21 applications for mining leases were pending as against corresponding figures of 157 and 35 twelve months earlier. Some two-thirds of the total number of applications for the whole Province concerned the Tavoy District, Thatôn coming next and Mergui third. The mining lease granted was for petroleum in the Minbu District.

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Petroleum.

105. The output of petroleum in the Province, which in the previous year amounted to 282¼ million gallons valued at Rs. 1,85·97 lakhs, increased in 1916 to 291¾ million gallons, while its value decreased to Rs. 1,65·13 lakhs. There are in the Province seven petroleum-producing Districts, Akyab, Kyaukpyu, Thayetmyo, Magwe, Myingyan, Pakôkku and Minbu. The output from the first three of these Districts was only some 115,000 gallons. The Yenangyaung Oil-field in the Magwe District continues to be the largest producer. During the last five years this oil-field has yielded over two-thirds of the total output for Burma. The yield from this field increased from 175 million gallons in 1914 to 199 million gallons in 1915 and decreased slightly during the year of report. In the Singu Oil-field, which is next in importance, the output increased from 77 million gallons to about 86 million gallons. The Singu Oil-field was transferred with effect from July 1st, 1916 from the Myingyan to the Magwe District and the output from the Magwe District, which includes the yield from the Singu field for the half-year July to December, amounted to 240 million gallons. In the smaller fields an increase of 1¼ million gallons to 5¼ million gallons in the output from the Yenangyat field in the Pakôkku District was the most noticeable feature of the year. The output from Minbu was 2 million gallons as against 2¼ million gallons, and from Myingyan 44 million gallons as against 77 million gallons in the previous year. On a report that oil had been struck in a deep bore on a concession near Minhla in the Thayetmyo District, the locality was surveyed and demarcated into blocks of one square mile each. Several of these blocks were taken up, but oil was not obtained in any quantity.

Wolfram.

106. The production of wolfram increased from 2,546 tons in 1915 to 3,680 tons. The Tavoy District alone produced 3,034 tons, over 1,000 tons more than in the previous year. In consequence of the need of wolfram for the manufacture of high-speed steel, special measures were taken by Government to encourage the output. Several of the larger firms in Rangoon were induced to take up wolfram concessions. The shortage in the supply of labour at the mines was met by the importation of Chinese and Indian labourers through Government agency. The Deputy Commissioner, Tavoy, was relieved of his other duties in order that he might give special attention to wolfram-mining. The services of two Geological officials, a Government Mining Engineer, and an officer of the Chinese Protectorate in the Federated Malay States were lent to the Local Government to assist in the control of mining methods and of the labour employed on the mines. On many of the smaller mines and on some of the larger ones the methods of working still leave much to be desired, but, with the introduction of a greater number of firms of standing, and with the more efficient control which is being exercised, there has been a marked improvement both in output and in methods of mining employed. Crushing and other machinery is being installed at several of the mines, and a magnetic separator has been set up at Tavoy, so that there is reason to expect a further increase of output. The total value of the wolfram produced during the year was Rs. 72·95 lakhs as against Rs. 42·66 lakhs in 1915. In addition to Tavoy, the Mergui District produced 340 tons, the Thatôn District 91 tons and the Southern Shan States 214 tons.

Rubies.

107. The Burma Ruby Mines Company, Limited, continued their operations during the year in the country round Mogôk. The output which had decreased from 304,872 carats in 1914 to 251,449 carats in 1915 again decreased to 209,724 carats in the year of report. The estimated value of the output however was higher than in 1915 being Rs. 5·63 lakhs as against Rs. 5·45 lakhs. The total output in 1916 consisted of 136,783 carats of rubies, 34,100 carats of sapphires and 38,841 carats of spinels. The royalties collected from native mine-owners rose from Rs. ·56 lakh in 1915 to Rs. 1·10 lakhs.

Other minerals.

108. The output of gold from the Province fell from 3,183 ounces in 1915 to 1,983 ounces in the year of report. Of the total amount some 1,900 ounces were obtained from the dredging concession of the Burma Gold Dredging Company, Limited, in the Myitkyina District. There has been a

considerable increase in the output of tin ore during recent years. The output was 83 tons in 1909, 175 tons in 1912, 265 tons in 1915 and 497 in 1916. The ore is obtained from alluvial gravels in the Mergui and Tavoy Districts and in the Bawlakè State of the Karenni Shan States. Towards the end of 1916 valuable deposits of tin are reported to have been found near the Thatôn-Martaban railway in the Thatôn District. In the year of report Thatôn had an output of 49 tons of tin ore, Tavoy 126 tons and the Southern Shan States 214 tons. The output from Mergui was 108 tons of tin ore and 113 tons of block tin. The total value of the Provincial output of tin and tin ore was Rs. 6·73 lakhs. The mining of silver, lead and zinc in the Province is bound up with the development of the mines at Bawdwin in the Northern Shan States by the Burma Mines Company. Argentiferous lead ores are found in the Bawdwin mines. These mines were worked at one time by Chinese from Yünnan for the extraction of silver, but were abandoned some fifty years ago. In 1902 a concession over the area was granted to a syndicate of British capitalists and the mines have been extensively and rapidly developed during recent years. The growth of the company's activities during the year of report has been noticed in Chapter I, paragraph 6 of this Report. The total output of silver in 1916 was 759,012 ounces valued at Rs. 13·28 lakhs as against 284,875 ounces valued at Rs. 4·67 lakhs in 1915. The output of lead was 13,790 tons valued at Rs. 48·27 lakhs as against 13,519 tons valued at Rs. 47·42 lakhs. The remainder of the lead produced in the Province came from the Southern Shan States, the output being 144 tons of ore worth Rs. 4,121. All the zinc ore produced in the Province came from the Bawdwin mines, where zinc is found together with silver and lead. The yield of zinc ore rose from 87 tons valued at Rs. 2,610 in 1915 to 3,198 tons valued at Rs. 87,396 in 1916. No copper ore was produced from Bawdwin as against 875 tons valued at Rs. ·35 lakh in the previous year. The output from the Jade mines in Myitkyina was 3,783 cwt. valued at Rs. 1·4 lakhs as against 3,693 cwt. valued at Rs. 1·9 lakhs in the previous year. Amber is extracted in the Hukong valley. The output, which amounted to 63 cwt. in 1910, dropped from 11 cwt. in 1915 to 5 cwt. in 1916. A rise in price lessened the decline in the value of the output, which was from Rs. 2,990 to Rs. 2,360. Molybdenite is found in small quantities in Tavoy and Mergui and platinum in Myitkyina. About 1,000 tons of antimony ore worth Rs. 7,500 were extracted in the Amherst District, where it is reported that large deposits were discovered in an area at present too difficult of access for profitable working to be possible.

Quarry stones and clay.

109. Over 219,000 tons of granite valued at Rs. 2¾ lakhs were produced as against 122,000 tons valued at a lakh and a half of rupees in 1915. The amount and value of the output of gravel decreased from 108,000 tons valued at Rs. 6·69 lakhs in 1915 to 105,000 tons valued at Rs. ·59 lakhs. The output of limestone decreased by 20 per cent. to 129,000 tons. The quantity and value of the output of laterite in 1916 were 222,000 tons and Rs. 2½ lakhs, as compared with 228,000 tons and Rs. 3 lakhs in 1915. Statistics for the output of pottery clay show that 423 tons valued at Rs. 1,269 were extracted, as against 629 tons worth Rs. 1,980 in 1915.

Revenue from mines and quarries.

110. The receipts from fees, rents and royalties on petroleum, rubies, jade and amber decreased by over six and a half lakhs of rupees to Rs. 32,25,475, but they exceeded the collections for 1914-15 by over two lakhs of rupees. Receipts from petroleum declined by over seven and a half lakhs of rupees. An increase in collections on petroleum in Magwe from Rs. 25,60,664 to Rs. 27,79,672, and a decrease in Myingyan from Rs. 11,07,375 to Rs. 99,814, are due in part, to the transfer of the Sale Township, including the Singu Oil-field, to the former District with effect from the 1st July 1916, in consequence of which all fees, rents and royalties payable after that date on the petroleum produced in that oil-field were credited to the Magwe District. The receipts for the two Districts combined fell from Rs. 36,68,039 to Rs. 28,79,486, owing to decreases in the output from the Yenangyaung and Singu Oil-fields. Receipts from petroleum remained practically stationary in the Minbu District, while in Pakôkku they increased from Rs. 59,525 to Rs. 84,795, on account of an advance of 2½ million gallons in the production of

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crude oil. Fees from *twinza* oil-wells and acreage fees for prospecting licenses fell slightly in this District. An increase from Rs. 3,828 to Rs. 12,142 in Thayetmyo was due to the issue of several prospecting licenses for oil, in consequence of the report that oil had been struck in a deep bore on a concession near Minhla. In Myitkyina the revenue derived from fees on licenses to collect royalty on jade-stone showed a further increase by Rs. 37,300 to Rs. 85,500. Receipts under this head depend largely upon the state of affairs in China. In the Ruby Mines District the recovery of the trade in rubies, which occurred in the previous year, continued and is indicated by an increase of Rs. 52,266 in receipts from royalties on precious stones. The figures are still much lower than in 1912-13 and 1913-14. Receipts from fees, rents and royalties on "other minerals" increased by Rs. 1,55,820 or 64 per cent. to Rs. 3,98,963 and are the highest yet recorded. In the Tenasserim Division alone there was an advance of Rs. 1,58,606, so that the figures for the rest of the Province represent a decline of Rs. 2,786. The Tavoy receipts rose from Rs. 1,59,836 to Rs. 2,78,780, chiefly on account of an increase of over a lakh of rupees in the amount credited as royalty on wolfram. The price per unit has remained constant at 55 shillings since August 1915, and the rate of royalty was raised from Rs. 40 to Rs. 60 per ton with effect from the 1st January 1916, since when it has remained unaltered. The revival of the tin industry is reflected in the figures for royalty paid on that mineral, which show an increase from Rs. 207 to Rs. 2,228. Acreage fees rose considerably on account of the increase from 117 to 260 in the number of prospecting licenses issued. Increases of Rs. 18,536 and Rs. 16,355 in Mergui and Thatôn, respectively, were mainly due to the increased output of wolfram and to the larger number of licenses issued for prospecting that mineral. In Thatôn allowance must also be made for the increase in tin-production which resulted from the discovery of tin deposits near the Thatôn-Martaban Railway. In Mergui receipts from royalties on tin advanced but slightly. The tin industry there is largely in the hands of Chinese workers. In the Amherst District a rise from Rs. 2,900 to Rs. 7,467 is explained by the increased activity of prospectors for minerals, which resulted in a considerable advance in the amounts credited as acreage fees in respect of prospecting licenses issued under the Mining Rules. The issue of several licenses for the extraction of clay and one license for prospecting lead accounts for an increase of Rs. 1,373 in Yamèthin. In Pakôkku many cultivators who had been forced by the poor season in 1915-16 to resort to pottery and brickmaking returned to their ordinary occupation in the year of report. Receipts from license fees for the extraction of clay for pottery fell in consequence by Rs. 538. A decline in the price obtained for the steatite mine of Sidôktaya is responsible for a decrease from Rs. 2,355 to Rs. 1,593 in Minbu, while a fall of Rs. 1,418 or 46 per cent. in Katha is explained by the abandonment of several concessions which had been granted under prospecting license in the previous year.

Manufactures.

Principal industries.

111. The vast majority of the indigenous population is agricultural, and manufacturing industries depend for the necessary supplies of labour on Indian immigrants. The number of persons supported by the various manufacturing industries of the Province are given in the Census Report of 1911. The only new departure during the year was a paint factory started on a small and more or less experimental scale. The most notable industrial feature was the increase in the number of rice-mills which erected plant for boiling unhusked rice. The extension of this industry in the last few years has been remarkable, and now the majority of the rice-mills outside Rangoon are manufacturing cured rice. The principal industries continued to be rice-milling, saw-milling, the extraction and refining of petroleum and transport. In the year of report rice-milling accounted for three-fifths of the number of registered factories in the Province and for half of the total number of operatives employed. The four industries combined account for nearly six-sevenths of the industrial population. Indeed the only other industry with an average daily number of persons employed above 2,000 is the cotton-

ginning industry. The indigenous native industries, such as the manufacture of cigars, pots, mats and umbrellas, *ngapi*, shoes and carts are household industries and call for no remark.

Factories.

112. The number of registered factories at the end of 1916 was 516, an increase of 36 over the corresponding figure for the previous year. Twenty-three factories were closed during the year. The average daily total number of persons employed was 68,362, of whom 4,682 were women and 542 children. The corresponding figures for 1915 were 66,352, of whom 3,601 were women and 617 children; and for 1914, 64,601, of whom 4,049 were women and 850 children. The fall in the number of children employed is due to the substitution of women for girls for picking over cotton in the Sagaing District. In the year of report the increase in the number of women is due to their employment in the rice-boiling industry. There was no change during the year in the general rate of wages for any class of industry. There was no abnormal feature in the sanitary conditions of mills and factories during the year. As it appeared that white-washing was of no assistance in keeping walls of galvanized iron clean, an order was passed whereby whitewashing is made compulsory only in cases in which the Inspector of Factories specifically orders it. Some trouble arose in dealing with the nuisance arising from the stagnant water run off from the pits in which unhusked rice has been soaked in the manufacture of boiled-rice. Inquiries are being made as to the best methods of coping with this nuisance. In the case of several recently erected mills orders were passed requiring fencing to be made. Guards have also been required for the lower halves of circular saws on rack benches. Rules were issued during the year making obligatory the provision of safe and convenient access to all parts of machinery in a mill. These rules were specially designed to meet the dangerous conditions which are frequently found in connection with the oiling arrangements for the tops of the elevators in rice-mills. The number of fatal accidents that occurred during the year was **22**, the same as in the previous year. The number of serious accidents fell from 121 to 99, and the number of minor accidents from 316 to 290. The number of prosecutions and convictions for offences under the Factories Act was 10 as compared with 14 in 1915. Of 493 factories actually working 396 were visited by the Inspector of Factories.

Trade.

Maritime trade: total value and revenue.

113. Statistical comparison by values of the trade of the year with that of previous years is somewhat difficult and misleading, as the values of goods imported during the year of report have, in comparison with previous years, been considerably inflated by the prevalent high prices of commodities. The Customs Department maintains two series of weighted index numbers, one for imports and one for exports. Taking 100 as representing the general level of prices in the triennium 1908-09 to 1900-01, the general level of prices for imported articles had increased to 133·2 in 1913-14, to 146·1 in 1915-16 and to 194·8 in 1916-17, while that for exported articles was 127·5 in 1913-14, 124·4 in 1915-16 and 135·8 in 1916-17. Nevertheless it is beyond question that the trade of the Province really made an appreciable recovery in 1916-17 from the setback which it received as the immediate result of the outbreak of war. The aggregate value of the seaborne trade of the Province increased by Rs. 12,48·25 lakhs to Rs. 69,87·53 lakhs or by **22** per cent. as compared with the total trade of 1915-16, and reached a figure that has hitherto been exceeded only in the two particularly prosperous years 1912-13 and 1913-14. The combined value of the import and export trade in private merchandise with foreign countries and India rose by Rs. 7,40·71 lakhs to Rs. 59,44·69 lakhs or 14 per cent.

Foreign imports of merchandise increased by Rs. 1,09·04 lakhs to Rs. 11,85·64 lakhs or 10 per cent. The United Kingdom's contribution rose by Rs. 75·51 lakhs to Rs. 6,58·95 lakhs, or 13 per cent., in spite of abnormally high freight-rates, the dearth of tonnage, and the withdrawal of labour from productive industries to the colours and munition works. Japan, enjoying the advantage of having a direct

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line of steamers, and being free from many of the difficulties that hamper other foreign exporters to Burma, was successful in further increasing her export trade to Burma, the total value of which rose by 34 per cent. to Rs. 1,46·68 lakhs in 1916-17 from Rs. 1,10·90 lakhs in 1915-16, which figure was almost twice that of the preceding year, and appreciably more than that of any previous year. Imports from the United States of America advanced by Rs. 11·80 lakhs or 10·5 per cent. to Rs. 1,23·15 lakhs. In spite of the difficulties occasioned by war conditions the export trade of the Province was distinctly satisfactory. The total value of exports (excluding re-exports) to foreign countries expanded by Rs. 4,56·84 lakhs to Rs. 19,47·57 lakhs, or by 31 per cent., while the export trade to India at least showed no falling-off as compared with the previous year. The balance of trade in the combined foreign and coasting external trade of the Province (private merchandise and Government stores), as represented by the excess in the value of exports over that of imports, amounted to Rs. 16,15·98 lakhs during the year of report, as against Rs. 13,43·52 lakhs in the previous year. The amount by which the exports of treasure exceeded the imports of treasure was Rs. 17·64 lakhs: this, when added to that representing merchandise and Government stores, shows a balance of Rs. 16,33·62 lakhs on the export side as compared with that of Rs. 12,72·35 lakhs in the previous year.

The total gross receipts of customs duty were Rs. 1,68·57 lakhs, an increase of 26 per cent. on the corresponding amount of Rs. 1,33·28 lakhs in the previous year. Import duty (excluding that on salt) rose from Rs. 66·75 lakhs to Rs. 89·05 lakhs and export duty from Rs. 51·59 lakhs to Rs. 61·88 lakhs. The gross receipts in 1914-15 had been Rs. 1,38·99 lakhs and in 1913-14, the last complete year before the war, Rs. 2,03·21 lakhs. The increase in 1916-17 was due to the general increase in the rates of duty which came into force in March 1916 and to the enhanced value of goods rather than to any increase in importations. Import duty (excluding that derived from salt) advanced by 33 per cent. The increase was general and applied to all goods except liquors and petroleum. The duty derived from salt increased by 18 per cent. The gross duty realized at Rangoon advanced by Rs. 36·30 lakhs to Rs. 1,58·16 lakhs or 30 per cent. and the net revenue by Rs. 35·40 lakhs to Rs. 1,55·11 lakhs or 30 per cent. as compared with the previous year's figures. In addition a sum of Rs. 5·64 lakhs was collected at Rangoon on account of rice shipped at Bassein and Moulmein as against Rs. 6·97 lakhs realized in 1915-16. The gross customs receipts at ports other than Rangoon were Rs. 10·41 lakhs, as against Rs. 11·43 lakhs in 1915-16, and Rs. 15·19 lakhs in 1914-15. Of the total receipts, Rs. 9·31 lakhs were realized on account of export duty. The collections at the various subordinate ports were:—Bassein Rs. 5·60 lakhs, Moulmein Rs. 2·42 lakhs, Akyab Rs. 1·78 lakhs, Tavoy Rs. ·37 lakh, Mergui Rs. ·18 lakh and Victoria Point Rs. ·06 lakh.

Rangoon trade: total figures.

114. The total value of all articles, excluding treasure, imported from foreign countries into Rangoon, was Rs. 11,73·90 lakhs, as against Rs. 10,64·07 lakhs in 1915-16 and Rs. 15,67·76 lakhs in 1913-14. Imports from India were valued at Rs. 9,01·95 lakhs, as against Rs. 7,71·83 lakhs in 1915-16. Exports from Rangoon to foreign countries, excluding treasure, were valued at Rs. 16,44·63 lakhs, as against Rs. 12,05·56 lakhs, in 1915-16 and Rs. 17,23·88 lakhs in 1913-14. Exports to India were valued at Rs. 13,61·82 lakhs, as against Rs. 13,96·14 lakhs in 1915-16.

Of the total foreign sea-borne trade of the Province, Rangoon took 89·97 per cent. as against 88·43 per cent. in 1915-16 and 82·72 per cent. in 1913-14. The share of Rangoon in the Indian and Provincial trade was much the same as in the previous year, being 82·47 per cent. and 42·25 per cent. respectively as against 83·74 per cent. and 43·64 per cent. in 1915-16.

Rangoon trade: foreign imports.

115. The year was a prosperous one in the cotton trade and imports classified as "Textiles—Cotton" increased in value from Rs. 4,16·45 lakhs to Rs. 5,76·11 lakhs, which figure represents 27 per cent. of the aggregate value of private merchandise imported into the Province during the year. Prices ruled abnormally high, but the market responded well to the advance. The most striking feature

of the year was the extended operation of Indian goods in the local market. Lancashire's misfortune in the matter of high cost of production and shipping difficulties was India's opportunity, and Indian business shows a substantial increase. Imports of twist and yarn rose by 2,596,190 lbs. to 14,931,025 lbs. and their value rose by Rs. 26·40 lakhs to Rs. 69·39 lakhs. In the previous year 1,634,856 lbs., valued at Rs. 16·41 lakhs, were imported from the United Kingdom, and 10,668,014 lbs. valued at Rs. 46·32 lakhs from India. In 1916-17 the United Kingdom sent 1,098,173 lbs. valued at Rs. 14·27 lakhs and India 13,823,652 lbs. worth Rs. 74·98 lakhs. Imports of foreign cotton piece-goods declined by over 4 million yards, or 4 per cent., but rose in value by Rs. 73·94 lakhs, or 31 per cent. Importations from India of cotton piece-goods of Indian manufacture rose by 12,666,782 yards and Rs. 38·09 lakhs to 43,804,126 yards, with a value of Rs. 98·79 lakhs, surpassing the previous year's record figures. Importations of silk textile goods fell in value from Rs. 52·47 lakhs to Rs. 44·26 lakhs. Restricted freights, high prices, and the general increase in the cost of living are responsible for the decline. The total value of imports of woollen goods rose by Rs. 6·19 lakhs, or 73 per cent., to Rs. 14·64 lakhs, the United Kingdom's contribution being Rs. 12·80 lakhs or 87 per cent. of the total as against Rs. 6·78 lakhs or 80 per cent. in the previous year. The total value of importations of articles of *apparel* rose by Rs. 3·79 lakhs, or 56 per cent., to Rs. 10·59 lakhs. The United Kingdom supplied 60 per cent. of the total as against 72 per cent. last year while Japan increased her share from 10 per cent. to 27 per cent. Imports of *Haberdashery* and *Millinery* rose by Rs. 10 lakhs to Rs. 23·08 lakhs of which total Japan was responsible for Rs. 13·81 lakhs. Imports of boots and shoes increased substantially, 459,808 pairs valued at Rs. 11·70 lakhs being imported, as against 280,910 pairs valued at Rs. 6·40 lakhs in 1915-16. The contribution of the United Kingdom amounted to 82 per cent. of the total. The value of *Metals* and *Ores* imported declined from Rs. 1,35·85 lakhs to Rs. 1,20·76 lakhs. The decline in quantity was much more marked being from 53,289 tons to 29,451 tons. The United States of America and the United Kingdom supplied practically the whole, their contributions being 53 per cent. and 43 per cent. respectively. Importations of articles of *Hardware* rose in value from Rs. 26·53 lakhs to Rs. 34·74 lakhs. The largest supplies came from the United Kingdom, being valued at Rs. 21·68 lakhs as against Rs. 16·42 lakhs; Japan took second place with Rs. 6·61 lakhs as against Rs. 2·08 lakhs, the United States of America following with Rs. 5·01 lakhs as against Rs. 6·41 lakhs in 1915-16. Agricultural and other implements and tools, buckets, builders' hardware and safes and strong boxes were the main lines from the United Kingdom. Japan seems to have captured the trade in enamelled ironware her share representing 90 per cent. with a total value of Rs. 3·46 lakhs as against Rs. 1·48 lakhs in the previous year. Metal lamps came largely from Japan and the United States of America, and most of the glass lamps were supplied by the former country. An increase of Rs. 6·55 lakhs was recorded under the sub-head "other sorts," the bulk of such miscellaneous articles being consigned from the United Kingdom. There was a decrease of importations of *Provisions and Oilman's Stores* from Rs. 57·68 lakhs to Rs. 47·45 lakhs. The largest contributor to this trade was the United Kingdom with a total value of Rs. 27·09 lakhs representing 57 per cent. of the imports as against Rs 30·36 lakhs or 53 per cent. in the previous year. The shares of the other principal supplying countries were:—the Straits Settlements 12 per cent., Holland 9 per cent., Hongkong 6 per cent. and the United States of America 5 per cent. There were increases in bacon and ham, cheese and vinegar, but all other articles showed a decrease. The importation of butter from the United Kingdom showed a very appreciable increase. The arrivals of lard fell. Milk, condensed or preserved, declined by 2,495,521 lbs.; the United Kingdom, Holland, Norway and Switzerland were the principal sources of supply. The decrease under the heading of canned and bottled provisions was fairly general, the biggest difference being noticed in the imports of sardines from Portugal. The total value of provisions and oilman's stores imported coastwise advanced by Rs. 12·25 lakhs to Rs. 71·80 lakhs or by 21 per cent., the greater portion being of Indian produce. The principal items were:—Dried meat (mainly from Bengal), ghi (chiefly from Bengal), butter (principally

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from Bombay) and eggs (chiefly from Chittagong). There was a further decline in the importation of *Fish* (excluding canned fish) from 239,129 cwt. valued at Rs. 48·14 lakhs in 1915-16 to 222,152 cwt. valued at Rs. 48·20 lakhs. Foreign imports chiefly from the Straits Settlements fell by 12 per cent. in volume and 22 per cent. in value. Tonnage was found somehow to bring in more salt than has ever previously been brought into the country during an official year and the total imports advanced by 17,095 tons and Rs. 15·69 lakhs or by 29 per cent. in volume and 62 per cent. in value. Three full cargoes came each from Spain, Aden and Port Said and 13 small consignments from Liverpool by regular liners. The largest supplier was Spain, whose consignments represented 29 per cent. of the total, Aden, Egypt and the United Kingdom each contributing 26, 23 and 21 per cent. respectively. Practically the whole quantity imported went into bond and, by the end of the year of report, all available bonding space was occupied, there being in store practically a whole year's supply for the Province. Importations of sugar declined from 463,947 cwt. valued at Rs. 71·83 lakhs to 255,715 cwt. valued at Rs. 41·48 lakhs. The falling-off is mainly due to smaller direct imports from Java, owing to the demand from the United Kingdom and shortage of tonnage. The total imports of liquors declined by 313,655 gallons and Rs. 1·29 lakhs in value, or 32 per cent. in quantity and 4 per cent. in value, to 669,483 gallons valued at Rs. 32·39 lakhs. Importations of ales were lower than in any year during the previous fourteen years. The United Kingdom supplied 74 per cent. and Japan 23 per cent. of the whole. The quantity of spirits fell by 46,560 gallons to 193,405 gallons but the value rose by Rs. ·51 lakh to Rs. 18·92 lakhs. Importations of wines rose by 3,376 gallons and Rs. ·63 lakh to 28,341 gallons valued at Rs. 2·38 lakhs. Foreign imports of *tobacco* fell by 24,784 lbs. to 627,113 lbs. but there was a rise in the value declared. The coasting imports (Indian and foreign produce) advanced by 173,248 lbs. and Rs. ·75 lakh to 15,076,110 lbs. valued at Rs. 39·07 lakhs. There was an advance in the importation of mineral oils by 2,254,573 gallons and Rs. 3·20 lakhs, or 44 per cent. in quantity and 28 per cent. in value.

The value of motor cars and motor cycles imported was Rs. 23·21 lakhs, or 82 per cent. in excess of the previous record figures for 1913-14. The number of motor cars imported was 560, as against 296 in the previous year. Among the articles classified as *Miscellaneous* there was an increase in the importations of *arms*, *ammunition* and *military stores*, of *building and engineering materials*, of *chemicals and chemical preparations*, of *cutlery*, of *bicycles*, of *earthenware*, and of *instruments and apparatus*. There were decreases under *fruits and vegetables*, *matches*, *parts of ships*, *soap*, *betelnuts*, *tea* and *umbrellas*.

Rangoon trade: exports of rice.

116. The value of the combined export trade (Indian and foreign), of the Province, in rice, husked and unhusked, during the year of report was greater by Rs. 2,45·01 lakhs than that of the previous year and its value, Rs. 22,16·8 lakhs represented 59 per cent. of the aggregate value of private merchandise (excluding re-exports) exported to foreign countries and India. The total quantity exported was 2,243,204 tons as against 2,191,769 tons in 1915-16, 2,348,270 tons in 1914-15, 2,744,236 tons in 1913-14 and 2,327,990 tons in 1912-13. During the year the demand was good and the total quantity exported out of Burma was 22,43,204 tons, showing an increase of 51,435 tons or 2 per cent. as compared with the previous year's figure. Notwithstanding the scarcity of tonnage, abnormally high freights and restrictions placed on exports, the foreign trade was well maintained, shipments aggregating 1,215,277 tons, while India consumed, 1,027,927 tons, representing 54 per cent. and 46 per cent. respectively of the total exports. As compared with the figures of 1915-16, foreign exports rose by 27 per cent., while shipments to India declined by 16 per cent. The freight market was high throughout the year. At the close of 1915-16 the charter rates to the United Kingdom were as high as 175*s.* a ton, the rate for the four years previous to the war averaging 25*s.* 10*d.* per ton. About June the rate dropped to 150*s.* owing to the release by Government of several transports for single voyages with rice cargoes. There was a rise in September to 165*s.* and this rate continued till November; but in December there was a further rise

to 250*s*. Rates then dropped to 180-185*s*. As tonnage became scarcer the rate advanced until 280*s*. was quoted at the end of January 1917; but it fell to 250*s*. in March. Freights to Marseilles and Mediterranean ports ruled at 175-200*s*. The rates to India and the Straits Settlements were also high. The year opened with freights to Calcutta at Rs. 17-8-0 dropping to Rs 13 in May and advancing to Rs. 15-8-0 during June-August, being some 200 per cent. higher than the rate current during the corresponding period of the previous year. The market then became easier, fluctuating between Rs. 8-8-0 and Rs. 12-8-0, touching Rs. 15 in January and dropping to Rs. 10 in March. Rates to Bombay opened at Rs. 25 per ton or over 100 per cent. higher than in the previous year. In June there was a rise to Rs. 30 and this rate continued till the close of the year. Freights to Penang and Singapore were at Rs. 2-4-0 to Rs. 2-6 0 per bag and Rs. 2-8-0 per bag respectively as against 8 annas and 10 annas respectively in the previous year. With more steamers available there was a drop to Rs. 1-12-0 and Rs. 1-14-0 in May and to Re. 1 and Rs. 1-2-0 in August. From that time there was a steady rise until Rs. 2-2-0 and Rs. 2-6-0 respectively were reached at the end of March.

The United Kingdom was again the largest purchaser of rice in the foreign trade, her takings increasing by 26,656 tons to 316,429 tons, the highest yet recorded. The Straits Settlements came next with 252,882 tons, showing an increase of 69,948 tons: much of this was, however, despatched to Java and Sumatra ports by the agents of Chinese shippers, with the result that the orders restricting exports to the Dutch East Indies were to some extent circumvented. Ceylon broke all previous records, taking 192,868 tons or 118,161 tons more than in the previous year. This increase is due partly to the increased use of Burma rice for the purpose of feeding estate coolies and partly owing to tonnage and other difficulties in drawing from her usual suppliers—Calcutta and Saigon. Shipments to the Dutch East Indies advanced by 72,345 tons to 169,643 tons, the highest yet recorded for direct shipments. The chief cause was the closing of the Saigon market, though a good deal of the business appears to have been somewhat speculative. Holland took 28,922 tons more than in 1915-16; most of this was shipped by the Belgian Relief Committee. Switzerland for the first time appeared as direct buyer. Shipments to Mauritius rose by 8,542 tons to 16,489 tons. No business was done with Japan, owing presumably to her own rice crop being plentiful. China drew much larger supplies, due, it is said, to the failure of crops in the country round Amoy. Exports to Cuba rose by 28,071 tons to 75,451 tons: these exports are solely due to the German source of supply being closed to Cuba and provide an illustration of a market, which, *primâ facie*, British trade should be able to wrest from the hands of our enemies after the war. Rangoon's share of the total foreign exports was 86 per cent. as against 81 per cent. in the previous year. Bassein came next with 10 per cent. as against 16 per cent. and Moulmein followed with 4 per cent. as against 2 per cent. in 1915-16. Shipments to India declined by 86,946 tons to 869,170 tons or by 9 per cent., owing to there being generally speaking good crops throughout the country. The total exports of rice bran from the Province declined by 58,682 tons and Rs. 25·92 lakhs to 143,888 tons with a value of Rs. 37·05 lakhs, due principally to the scarcity of tonnage. Prices ruled lower, averaging Rs. 26 as against Rs. 31 per ton in the preceding year. The United Kingdom again took the bulk.

Rangoon trade: exports of other commodities.

117. Despite high freights and shortage of tonnage, the export trade in teak did fairly well during the year. A total quantity of 125,648 cubic tons valued at Rs. 1,61·86 lakhs was exported from Rangoon as against 101,202 cubic tons valued at Rs. 1,38·48 lakhs in 1915-16. Foreign exports decreased by about 20 per cent., as compared with the previous year's figures, but Indian exports increased by 40 per cent. Exports to the United Kingdom and Australia declined but those to Ceylon, South Africa and the United States of America all showed an increase. No shipments were made to France, Italy or Japan. The increase in the exports to India was due to greater activity in the Indian markets and fairly regular opportunities of shipment. Demand has increased owing to the needs of the Military Works Department; and the scarcity of metal building materials has also stimulated the demand for teak for house-building. In correspondence with

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an increase in the output of petroleum in the Province to a figure higher than any previously recorded, the export trade in *mineral oils* was greater than in any previous year. A total quantity of 155,878,906 gallons valued at Rs. 5,16·69 lakhs was exported, as against 147,001,406 gallons valued at Rs. 4,68·56 lakhs in the previous year. In exports of benzene, benzol and other motor spirit there was a drop of 553,113 gallons or 2 per cent. in the foreign trade. The United Kingdom took 96 per cent. and the balance went to France. The home demand for motor spirit was very strong throughout the year and an increase would undoubtedly have been shown but for the shortage of tonnage. Thanks to the increased requirements of the Indian market and of the military authorities in India and Mesopotamia, exports to India advanced by 2,559,190 gallons to 6,630,724 gallons and by Rs. 22·56 lakhs to Rs. 66·30 lakhs, showing a rise of 63 per cent. in quantity and 52 per cent. in value. Bengal took the bulk. In this case also the trade was hampered by difficulties of freight. Shipments to the Provincial ports were more than double the total of the previous year. Exports of kerosene oil to foreign countries were practically *nil*, but the Indian exports were the highest hitherto recorded. This was due to the cessation during the year of imports into India of oil from the Dutch East Indies, and also, in a lesser degree, to the freight difficulties experienced by American shippers. Exports of other kinds of mineral oils to foreign countries decreased by 89 per cent. in quantity and 55 per cent. in value. The principal decline was in Navy fuel oil sent to the United Kingdom. Lubricating oil fell from 221,659 gallons to 181,184 gallons owing to lack of freight and the difficulty in securing casks. Less went to the Straits Settlements and Australia, whereas more was taken by Ceylon and Persia. An increase of 1,588,630 gallons and Rs. 2·79 lakhs was recorded in exports to India chiefly under jute-batching and lubricating oils. Exports of *paraffin-wax* showed a substantial advance due to an increased demand for wax for making munitions in the United Kingdom and the United States of America and the withdrawal of restrictions on export to certain countries. The total foreign exports expanded by 84,574 cwt. and Rs 20·45 lakhs to 459,525 cwt. with a value of Rs. 97·50 lakhs, which figures are the highest recorded. Japan took about 25 per cent. of the total exports. The export trade in candles showed an improvement during the year. Exports to foreign countries rose by 125,355 lbs. and Rs. ·45 lakh to 6,277,420 lbs. valued at Rs. 17·73 lakhs. Shipments to India fell by 285,968 lbs. and Rs ·74 lakh to 4,959,299 lbs. with a value of Rs. 14·04 lakhs. Owing to the continuance of restrictions on export, a further decline took place in shipments of hides and skins to foreign ports. The quantity exported was 83,742 cwt. valued at Rs. 59·34 lakhs, as against 86,465 cwt. valued at Rs. 56·84 lakhs in the previous year. Owing to a shortage of labour in the tanneries of the United Kingdom large quantities, which otherwise would have gone to the United Kingdom, went to America. Buffalo hides declined by 1,454 cwt. to 15,848 cwt., but advanced in value by Rs. 2·44 lakhs to Rs. 8·80 lakhs. The United Kingdom took 11,474 cwt. as against 14,395 cwt., whereas shipments to the United States of America rose from 160 cwt. to 2,408 cwt. Cow hides decreased by 1,241 cwt. but the value was practically the same as in the previous year. France, taking 25,731 cwt. was the largest customer, the United States of America coming next, and the United Kingdom with 9,188 cwt. coming third. Italy's takings dropped from 20,133 cwt. to 6,476 cwt., while Spain's rose from 832 cwt. to 3,150 cwt. Japan took 2,222 cwt. as against 9 cwt. in 1915-16. The total exportations of *raw cotton* increased in quantity from 141,603 cwt. in 1915-16 to 145,232 cwt. There was a marked increase in value from Rs. 41·01 lakhs to Rs. 66·53 lakhs. The total foreign shipments rose by 6,282 cwt. and Rs. 21·38 lakhs or 6 per cent. in volume and 70 per cent. in value to 111,117 cwt. valued at Rs. 52·05 lakhs. Practically the whole of this went to the United Kingdom. Exports to Japan declined from 20,693 cwt. to 656 cwt., probably owing to her being able to import cotton to better advantage from America. Prices were high during the year, owing to there being a short crop in America. The trade in *cotton seed* was again almost non-existent. Exports of cotton-seed oil, however, to the amount of 74,272 gallons valued at Rs. 1·32 lakhs, went to the United Kingdom. Exports of the by-product cotton-seed oil-cake aggregated 63,850 cwt., valued at Rs. 1·75 lakhs, as

against 71,392 cwt. worth Rs. 2·13 lakhs in 1915-16. All the oil-cake went to the United Kingdom. The export trade in *groundnuts* recovered from the collapse of the previous year and 43,160 cwt. were exported, the great bulk of which went to Hongkong. Exports of groundnut oil showed a very marked increase, the total foreign shipments reaching the record figure of 493,468 gallons with a value of Rs. 8·48 lakhs, mainly to the United Kingdom. In spite of the fact that groundnut oil was produced so largely in the Province, 8,593 gallons were imported, chiefly from Hongkong, as against 6,229 gallons in 1915-16, while the importations from India increased by 582,320 gallons and Rs. 10·57 lakhs to 996,572 gallons with a value of Rs. 17·87 lakhs, all of which came from Madras. The general shortage of food in the United Kingdom was mainly responsible for the increase in the export of *beans* to foreign countries the total quantity rising by 33,445 tons or by 98 per cent. to 67,629 tons. The United Kingdom took 88 per cent. of the total quantity exported, her share being 56,901 tons as against 31,288 tons in the previous year. Japan took 4,836 tons as against 692 tons. The United States of America, after a lapse of two years, reappeared as a customer and took 3,100 tons. Owing to the requirements for war purposes the demand for *rubber* has been very active. The total foreign exports from the Province were the highest yet recorded aggregating 2,301,157 lbs. with a value of Rs. 43·93 lakhs as compared with 1,285,984 lbs. valued at Rs. 30·69 lakhs, an increase of 79 per cent. in volume and 43 per cent. in value. The average declared value per pound fell from Rs. 2-6-2 to Rs. 1-14-6. The United Kingdom absorbed the bulk of the total quantity exported, taking 1,683,907 lbs. as against 1,051,008 lbs. in 1915-16, while the Straits Settlements took 430,908 lbs. as against 180,432 lbs. and Ceylon 91,118 lbs. as against 18,704 lbs. in the previous year. Export is prohibited to all destinations other than the United Kingdom and British Possessions, but 93,791 lbs. were allowed to be exported under license to America. The export trade in *cutch* received a set-back during the year of report after the remarkable advance it made in the previous year. The total exports to foreign countries and India fell, by 78,780 cwt. and Rs. 12·80 lakhs, to 91,544 cwt. with a value of Rs. 17·81 lakhs, or by 46 per cent. in volume and 42 per cent. in value. Exports to foreign countries dropped, by 85,880 cwt. and Rs. 13·78 lakhs, to 58,332 cwt. valued at Rs. 10·12 lakhs. The Indian demand, however, was much better, the total exports advancing by 7,100 cwt. and Rs. ·97 lakh to 33,212 cwt. with a value of Rs. 7·68 lakhs or by 27 per cent. in quantity and 15 per cent. in value. Bengal was the largest buyer. Only 74 cwt. of *lac* valued at Rs. ·04 lakh were exported to foreign countries as against 93 cwt. in the previous year. Shipments to India, however increased by 4,994 cwt. and Rs. 5·57 lakhs to 24,338 cwt. with a value of Rs. 8·52 lakhs. Prices ruled abnormally high the average rising from Rs. 15 to Rs. 35 per cwt. Exports of *lead* to foreign countries declined by 495 tons to 10,351 tons in volume but rose in value by Rs. 18·05 lakhs to Rs. 53·89 lakhs. The bulk went to Ceylon for tea packing and other industrial purposes. Russia was the next largest customer taking 2,782 tons as against 964 tons in 1915-16. The whole of this went to Vladivostock for the manufacture of war material. Exports to the United Kingdom declined by 3,181 tons to 1,915 tons. The more effective control exercised by Government over the methods of working *wolfram ore* at the mines has resulted in an increase of some 73 per cent. in the quantity exported as compared with the previous year's figures. There is every prospect of next year's figures showing a substantial increase in output.

The following figures of exports show the expansion of the industry :—

	Tons.	Rs. Lakhs.
1912-13	1,763	24·29
1913-14	1,879	27·21
1914-15	1,916	26·37
1915-16	2,629	53·10
1916-17	4,542	1,02·58

Of the total shipments, the United Kingdom took 4,409 tons and the rest went to the Straits Settlements (Penang) mostly for treatment there prior to

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re-exportation to the United Kingdom. The necessary plant for separation has now been established in Tavoy and shipment to the Straits Settlements has recently been prohibited.

Exports of *zinc ore* during the past five years were as follows :—

	Tons.	Rs. Lakhs.
1912-13	91	·06
1913-14	7,627	4·71
1914-15	4,387	3·42
1915-16	87	·05
1916-17	3,198	2·36

Japan took 2,997 tons and the United Kingdom the balance. The ore contains a varying percentage of lead which requires to be separated, and shipments to the United Kingdom have so far been made only for the purpose of experimental treatment. Exports of *jadestone* surpassed the previous year's record figures by 1,245 cwt. and Rs. 5·84 lakhs, showing a total of 5,626 cwt. with a value of Rs. 11·31 lakhs. The value per cwt. advanced from Rs. 125 to Rs. 200 or by 60 per cent. As usual Hongkong took practically all.

Distribution of Rangoon trade.

118. In 1913-14 the last complete year before the war the United Kingdom's share in the total foreign trade of Rangoon was 36·51 per cent. In 1915-16 it was 47·33 per cent. and in the year of report 44·40 per cent. Of the total imports in 1916-17 55·94 per cent. came from the United Kingdom as against 54·40 per cent. in 1915-16. Of the total exports 36·20 per cent. went to the United Kingdom as against 41·12 per cent. The share of the British Empire (including the United Kingdom) in the total trade amounted to 70·46 per cent. as against 69·40 per cent. in 1915-16. Imports from the British Empire rose from 64 per cent. to 66·99 per cent. of the total imports, and exports to the British Empire fell from 74·15 per cent. to 72·93 per cent. of the total exports. Noteworthy variations were a rise in the Straits Settlements' share and a fall in Hongkong's share of the total imports, a marked rise in Ceylon's share and a fall in Egypt's share of the total exports. Foreign European countries claimed 6·65 per cent. of the total trade as against 9·19 per cent. in 1915-16 and 24·96 per cent. in 1913-14. Imports from foreign European countries were 7·59 per cent. of the total imports as against 8·50 per cent. in the previous year, while exports to foreign European countries were 5·99 per cent. of the total exports as against 9·80 per cent. A sharp rise in exports to Holland and the appearance of Switzerland among the countries to which Rangoon exports are the most outstanding features of the year. Foreign Asiatic countries claimed 14·36 per cent. of the total trade as against 13·72 per cent. in the previous year. Imports from Java fell from 5·08 per cent. of the total imports to ·15 per cent. Imports from Japan were 12·67 per cent of the total imports as against 10·39 per cent. while exports to Japan dropped from 2·27 per cent. of the total exports to 2·17 per cent. Exports to Sumatra and Java increased markedly. Trade with the United States of America amounted to 5·52 per cent. of the total trade as against 5·57 per cent. last year.

Subordinate ports.

119. The percentage of the total Foreign, Indian, and Provincial trade of the Province which fell to Rangoon was 84·18 as against 83·61 in 1915-16. Of the foreign trade Rangoon claimed 89·97 per cent. Of the remaining 10 per cent. Bassein took 4·05 per cent., Tavoy 2·58 per cent., and Moulmein 1·69 per cent. The percentage of the trade with India that fell to Rangoon was 82·47, and of the remaining 17·53 per cent. Akyab claimed 8·77 per cent., Moulmein 5·72 per cent., and Bassein 2·99 per cent.

Intra-provincial sea-borne trade.

120. The total value of the interportal trade of the Province in private merchandise was very much the same as in the previous year, *viz.*, Rs. 3,18·36 lakhs as against Rs. 3,18·26 lakhs, imports being Rs. 1,73·40 lakhs as against Rs. 1,71·20 lakhs and exports Rs. 1,44·96 lakhs as against Rs. 1,47·06 lakhs. The bulk of the traffic was as usual between Rangoon and the ports of the Tenasserim Division. There was a drop of Rs. 4·38 lakhs in the value of the total trade of

Rangoon, from Rs. 1,38·90 lakhs to Rs. 1,34·52 lakhs. Moulmein again showed a large decline due to the absence of steamer traffic with Rangoon, there being a total fall of Rs. 27·11 lakhs due mainly to a decrease in imports from Rs. 35·92 lakhs to Rs. 12·37 lakhs. Mergui was up by Rs. 11 lakhs to Rs. 50·31 lakhs, Tavoy up by Rs. 16 lakhs to Rs. 67·34 lakhs, and Akyab up by Rs. 7 lakhs to Rs. 41 lakhs. Akyab and Mergui showed increases in both exports and imports while Tavoy showed an increase in imports but a decline in exports the latter being due to the absence of a market at Penang and to high rates of freight and insurance. CHAP. IV.—PRODUCTION AND DISTRIBUTION.

121. The total value of transfrontier trade registered during 1916-17 was Rs. 9,48·14 lakhs an increase of Rs. 2,01·83 lakhs, or 27 per cent., over the corresponding figure for 1915-16. Imports rose by Rs 58·33 lakhs to Rs. 4,54·65 lakhs, and exports rose by Rs. 1,43·49 lakhs to Rs. 4,93·48 lakhs. The great increase in the material supplied to and the output from the Burma Mines' property in the Northern Shan States has been the main factor in the expansion. Generally speaking, apart from mining activity, the depression of trade due to the war was maintained during the year. An apparent recovery shown in many cases in the increased value of exports is largely illusory, being due to the rise in prices. During the year, importation of live-stock, continued to fall. Importation of hides did likewise, owing to the impossibility of exporting by sea. Imports of teak were the same as in the previous year. Metals alone showed a substantial rise, due to increased output of lead from the Northern Shan States and wolfram from Karenni. Among exports, the only real rises, in manufactured iron articles, coal, and railway materials, were also due to mining activity. European cotton-goods were down in quantity but up in value owing to the rise in prices. Indian cotton yarns showed an improvement both in quantity and value. Trans-frontier trade: total trade.

122. The trade with Western China is practically the trade of Burma with Yünnan, with the main emporia at Bhamo and Têngyüeh. The principal articles exported are raw cotton, Indian cotton yarns, European piece-goods, fish and jade. The principal imports are pigs, hides, orpiment, raw silk and silver. In 1916-17 the total volume of trade constituted a record, rising in value to Rs. 1,57·67 lakhs as against Rs. 1,35·51 lakhs in 1915-16. Imports rose from Rs. 88·32 lakhs to Rs. 1,02·49 lakhs and exports rose from Rs. 47·19 lakhs to Rs. 55·17 lakhs. The adverse balance of trade is adjusted by remittances from Rangoon to banks in China. The value of silver imported rose by Rs. 9·55 lakhs to Rs. 78·61 lakhs. The increase which has been conspicuous during the last three years is attributable partly to the exchange of Chinese for British coin which circulates freely in parts of Yünnan and partly to purchases of silver for export to Bombay. The importation of raw silk continued to increase and rose in amount from 2,377 maunds in 1915-16 to 3,431 maunds in 1916-17 and in value from Rs. 10·03 lakhs to Rs. 14·53 lakhs. The average value per unit of the raw silk imported has decreased. This may be due to inferior grades being imported to meet the demand caused by the stoppage of supplies from Europe. Imports of orpiment rose from 4,633 maunds worth Rs. 61,806 in 1915-16 to 13,109 maunds worth Rs. 2·15 lakhs. The rise again is due to the impossibility of obtaining from Europe ingredients for the manufacture of paint. The quantity of hides imported rose from 7,954 maunds to 9,055 maunds, but the rise in value was by no means commensurate being from Rs. 2·31 lakhs to Rs. 2·37 lakhs. Among exports raw cotton declined in quantity from 4,964 to 4,335 maunds but rose in value from Rs. 91,571 to Rs. 1,15,432. The fluctuations in this trade in recent years have been interesting. The trade is a very old-established one. Owing to the rise in price of Burma cotton due to the demand for exportation to Europe, India and Japan the quantity exported to Yünnan fell in 1910-11 to 1,478 maunds worth Rs. 33,634. In 1913-14 consequent on a fall in prices in Burma the amount exported to Yünnan had increased to 7,681 maunds worth Rs. 2·01 lakhs. Next year, when exportation by sea had declined, the amount exported to Yünnan rose to 28,586 maunds worth Rs. 4·79 lakhs. In the last two years there has been a shrinkage correlative with the rise of prices in Burma. It would appear that the demand for Burma cotton in Yünnan is very elastic and Western China.

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almost ceases to exist when the price reaches a certain limit. The Indian yarns exported increased in quantity from 55,350 maunds worth Rs. 21·88 lakhs in 1915-16 to 65,367 maunds worth Rs. 29·05 lakhs. European piece-goods declined in quantity from 12,136 maunds to 10,526 maunds, and in value from Rs. 14·48 lakhs to Rs. 13·78 lakhs. The quantity of fish exported fell considerably from 16,988 maunds to 13,348 maunds, but the decline in value was only from Rs. 1·51 lakhs to Rs. 1·37 lakhs. There was a marked fall in the export of jade from 1,117 maunds worth Rs. 1·49 lakhs to 692 maunds worth Rs. ·94 lakh.

Unadministered Kachin country and the Northern Shan States.

123. Trade with the unadministered Kachin country increased in its volume from Rs. 11·82 lakhs in 1915-16 to Rs. 13·55 lakhs in 1916-17. This increase is mainly due to the rise in exports from Rs. 6·56 lakhs to Rs. 8·01 lakhs the increase in imports being relatively small from Rs. 5·25 lakhs to Rs. 5·54 lakhs. The trade is mostly petty trade in common articles of food and clothing. Pigs, fish and gold dust are the principal imports and cattle, clothing, opium, and salt the principal exports.

Trade with the Northern Shan States increased markedly in total volume during the year from Rs. 3,32·39 lakhs to Rs. 5,11·55 lakhs, an increase of 54 per cent. Imports increased by 29 per cent. to Rs. 2,13·37 lakhs, and exports by 79 per cent. to Rs. 2,98·18 lakhs. In this trade metals, tea, hides, gums and resins, oranges and potatoes are among the chief imports, and wearing apparel, cotton yarns and piece-goods, petroleum, fish, salt, provisions, coal and metals among the chief exports. The expansion in trade in 1916-17, as in recent years, is largely due to the activity of the Burma Mines Corporation at Namtu. In the year of report the value of oranges imported rose from Rs. 3·49 lakhs to Rs. 4·81 lakhs. The value of dyes imported fell from Rs. 1·23 lakhs to Rs. ·52 lakh. The value of gums and resins declined from Rs 1·97 lakhs to Rs. 1·35 lakhs. Hides fell in value from Rs. 3·31 lakhs to Rs. 2·83 lakhs, the reduction in quantity being relatively less. Imports of pickled tea fell by over a lakh of rupees to Rs. 25·31 lakhs while dry tea rose by Rs. 4 lakhs to nearly Rs. 30 lakhs. Imports of lead and "other metals" rose, from Rs. 37·29 lakhs in 1915-16, to Rs. 89·28 lakhs, mainly owing to increased output from the Burma Mines. Among exports, the value of European piece-goods increased from Rs. 27·49 lakhs to Rs. 31·98 lakhs though the quantity exported fell from 21,716 maunds to 18,026 maunds. Exports of petroleum went up by 53 per cent. to Rs. 4·93 lakhs. To the activity of the Burma Mines Corporation are due the rise in the value of exported coal from Rs. 10·95 lakhs to Rs. 29·48 lakhs, of iron from Rs. 56·17 lakhs to Rs. 1,45·43 lakhs, and of railway materials from Rs. 4·52 lakhs to Rs. 9·32 lakhs. The value of salt exported rose from Rs. 3·97 lakhs to Rs. 6·17 lakhs.

The Southern Shan States.

124. The decline in the trade with the Southern Shan States which marked the two previous years was continued in 1916-17, when the total volume of trade declined by nearly Rs. 4 lakhs, or 2 per cent. to Rs. 1,63·81 lakhs. Imports declined from Rs. 74·94 lakhs to Rs. 72·46 lakhs, and exports declined from Rs. 92·55 lakhs to Rs. 91·35 lakhs. Sixty-four per cent. of this trade is now carried by the Southern Shan States Railway. Live stock, cheroot-wrappers, foodstuffs, timber and hides are the main imports, cotton and silk manufactures, fish, salt, spices and silver the main exports. In the year of report, the value of ponies imported declined from Rs. 3·74 lakhs to Rs. 2·19 lakhs, and that of cattle from Rs. 10 13 lakhs to Rs. 8·67 lakhs. Only 8 elephants valued at Rs. ·49 lakh were imported as against 57 worth Rs. 3·16 lakhs in 1915-16. The decline is due to the falling-off in purchases by timber firms. The value of imported garlic and oranges is up to Rs. 3·06 lakhs and Rs. 2·83 lakhs respectively, as against Rs. 2·21 lakhs and Rs. 1·27 lakhs in the previous year. There is a slight decline in potatoes from Rs. 4·04 lakhs to Rs. 3·77 lakhs. There is a marked increase in wheat, from Rs. ·48 lakh to Rs. 3·94 lakhs. Imports in hides declined in volume from 3,344 maunds to 2,739 maunds, and in value from Rs. 1·39 lakhs to Rs. 1·08 lakhs. Cheroot-wrappers were up by over one and a half lakhs of rupees to Rs. 16·87 lakhs. The value of paints imported rose from Rs. ·79 lakh to Rs. 1·27 lakhs. Among exports wearing apparel declined in value from Rs. 4·18 lakhs to Rs. 3·59 lakhs.

European piece-goods increased from 13,424 maunds worth Rs. 26·64 lakhs to 15,424 maunds worth Rs. 30·85 lakhs. Silk piece-goods fell from Rs. 2·07 lakhs to Rs. 1·35 lakhs. The value of iron articles exported fell from Rs. 5·86 lakhs to Rs. 2·69 lakhs. Salt rose from Rs. 2·47 lakhs to Rs. 3·21 lakhs. Oils were exported in larger quantities than the previous year: the value rose from Rs. 4·85 lakhs to just over Rs. 6 lakhs.

Siam and Karenni.

125. Trade with Northern Siam has decreased progressively since 1914-15, the total volume in that year being Rs. 70·95 lakhs, next year Rs. 49·01 lakhs and in the year of report Rs. 46·53 lakhs. Imports declined from Rs. 25·15 lakhs in 1915-16 to Rs. 24·57 lakhs and exports, which were as high as Rs. 31·31 lakhs in 1914-15, declined from Rs. 23·85 lakhs to Rs. 21·96 lakhs. The decline in exports in 1916-17 is considerably less both relatively and absolutely than in the previous year. But this is due mainly to the rise in prices. Cattle, teak, elephants and silver are the main imports and wearing apparel and cotton yarns and piece-goods the main exports. In the year of report, the value of cattle imported rose from Rs. 2·69 lakhs to Rs. 3·46 lakhs, that of elephants fell from Rs. 5·61 lakhs to Rs. 4·61 lakhs, while teak showed a slight improvement from Rs. 5·92 lakhs to Rs. 5·96 lakhs. Among exports, European yarns declined in quantity from 5,757 maunds to 3,658 maunds, but rose in value from Rs. 3·73 lakhs to Rs. 3·93 lakhs. European piece-goods declined in quantity from 1,393 maunds to 841 maunds and in value from Rs. 2·37 lakhs to Rs. 1·74 lakhs

Trade with Southern Siam fell from Rs. 20·46 lakhs in 1915-16 to Rs. 16·21 lakhs which is rather less than half the volume of 1914-15. Imports fell from Rs. 14·01 lakhs in 1915-16 to Rs. 10·33 lakhs, and exports from Rs. 6·44 lakhs to Rs. 5·87 lakhs. Among imports, the value of cattle declined by over a lakh of rupees to Rs. ·66 lakh, and that of elephants from Rs. 7 lakhs to Rs. 3·13 lakhs. Silk piece-goods increased in quantity from 63 maunds to 123 maunds, the rise in value being proportionately less, from Rs. 2·02 lakhs to Rs. 3·38 lakhs. Among the exports the only notable increase is under Japanese goods with a rise from Rs. 20,642 to Rs. 41,420. Japan is supplying the cheap manufactured articles that formerly came from Germany and Austria. All the other main items of exports, apparel, iron articles, cotton yarns and cotton and silk piece-goods show a decrease generally ranging about 25 per cent.

The total value of the trade with Karenni rose, from Rs. 29·59 lakhs in 1915-16, to Rs. 38·78 lakhs, imports being up by almost Rs. 3 lakhs to Rs. 25·87 lakhs, and exports being up by Rs. 6 lakhs to Rs. 12·90 lakhs. The growing activity in mining is responsible for the expansion of trade in the year of report, and is counteracting the depression caused in late years by the exhaustion of the teak forests. The rise in imports is due to the increase in the output of wolfram extracted by the Mawchi Tin Mining Company which rose from a value of Rs. 3·55 lakhs in 1915-16 to Rs. 7·7 lakhs. The rise in exports is due to the manufactured iron articles rising from Rs. 7,510 to Rs. 2·34 lakhs and silver from Rs. 4·47 lakhs to Rs. 8·53 lakhs.

Public Works.

Administrative and General.

126. No administrative changes took place in the Department of Public Works during the year. The total expenditure during the year was Rs. 1,25·52 lakhs against a total grant of Rs. 1,35·04 lakhs. The expenditure in 1915-16 was Rs. 1,41·07 lakhs.

(*i*) *Roads and Buildings.*

Communications.

127. The total length of metalled and unmetalled roads, respectively, maintained by Government agency throughout the Province outside Municipal areas was 1,916 miles and 10,432 miles. The Public Works Department maintained 1,912 miles of metalled roads and 8,706 miles of unmetalled roads,

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the remainder being under the charge of local authorities. There was a shrinkage, as compared with last year, of 21 miles in the case of metalled and 302 miles in the case of unmetalled roads. The total expenditure on communications, which in 1915-16 was Rs. 54·74 lakhs, amounted in the year of report to Rs. 51·21 lakhs, of which Rs. 19·80 lakhs were expended on original works and Rs. 31·41 lakhs on repairs. The usual routine of constructing, repairing and improving roads throughout the Province was carried on throughout the year. Among the more striking features may be noticed the construction of a 400 feet span suspension bridge at Tatingang over the Namtu in the Northern Shan States, the estimated cost being Rs. 70,038. This bridge takes the place of a ferry and will greatly improve communications in those States. Good progress was made in improving the communications of the Tavoy District with a view to facilitating an increased output of wolfram. The improvements to the Pagaye-Myitta road were completed. Three bridges were practically finished, one was actually finished and the renewal of another begun. On the Tavoy-Pagaye road, three bridges were renewed, and part of the road realigned to avoid floods. An inspection bungalow was completed at Kanbauk. Improvements were also made to the communications of the oil-fields at Yenangyaung. The policy of replacing old timber bridges by structures of a more permanent nature was pursued vigorously and a sum of Rs. 3·80 lakhs was spent on such work. During the year four meetings of the Communications Sub-Committee of the Standing Advisory Committee were held. One result of these meetings was the appointment of a selected Deputy Commissioner and Executive Engineer to draw up schemes of road-construction and to work out proposals for improving communications in each District in consultation with the Deputy Commissioner and Executive Engineer of each District. All that was done during the year towards the improvement of waterways in the Delta was the construction and completion of surveys and estimates for the major waterways, the improvement of which is contemplated. In the case of three schemes the estimates were sanctioned by the Local Government, in the case of four schemes the necessary land was demarcated and in the case of three schemes was notified for acquisition.

Buildings: Imperial and Provincial.

128. A sum of Rs. 3·43 lakhs was expended on Civil Imperial Works as compared with Rs. 6·22 lakhs in the preceding year. The new Customs House at Rangoon was completed. The new Telegraph Office at Rangoon was practically finished. The wireless telegraphy station at Maymyo was completed except for the rainwater pipes for the main building. A loggia was built at Government House, Rangoon. At Thayetmyo an internment-camp, and at Shwebo a sanatorium, were built for Turkish prisoners. Expenditure on Civil Provincial buildings, which in the previous year was Rs. 20·92 lakhs, amounted in the year of report to Rs. 17·50 lakhs, of which Rs. 9·68 lakhs were spent on new works and Rs. 7·82 lakhs on repairs. A sum of Rs. 1·19 lakhs was expended on works at the Insein Central Jail. The construction of a District Court-House at Myingyan to replace the former one destroyed by fire was commenced and progressed satisfactorily. Good progress was made with the necessary buildings at Mawlaik, the designated headquarters of the Upper Chindwin District. Permanent quarters for the Civil Police were completed at 12 police-stations in Lower Burma. Good progress was made with the new Municipal Hospital at Toungoo. A new ward, necessitated by the development of the mining industry, was built at the Tavoy Municipal Hospital. At Rangoon the alterations of the old General Hospital to provide better accommodation for the Government Medical School were taken in hand. These are the most outstanding items in a list of numerous works, completed or in progress during the year on schools, court-houses, jails, hospitals and other Government buildings throughout the Province.

Miscellaneous public improvements and sanitary works.

129. During the year the total expenditure throughout the Province on Miscellaneous Public Improvements was Rs. 19·98 lakhs of which Rs. 15·08 lakhs were devoted to new works and Rs. 4·90 lakhs to repairs. The total expenditure in the previous year was Rs. 22·07 lakhs. The work of reclaiming

town-sites in the Delta by the dredger "Frederic Fryer" was proceeded with, the reclamation of Wakèma and Mawlamyainggyun Towns in the Myaungmya District and of the recreation-ground at Ma-ubin being completed and two-thirds of the work at Pyapôn carried out. Reclamation was also carried out at Myohaung in the Akyab District where the moat was filled in, and at Kyaukpyu where the filling in of swamps behind the embankment was nearly completed. At the new Railway Towns of Bassein, Yegyi (Bassein District) and Penwegon (Pegu District) progress was made with the construction of roads. The site of the new civil station at Kalaw in the Southern Shan States was cleared and some four miles of roads and ten culverts completed. The protective embankment at Sagaing was completed. Protective works to the foreshore at Bogale in the Pyapôn District and at Kyaukpyu near the bazaar were completed. The Singon bridge at Kyauksè was completed.

Surveys were made and materials collected for an empounding reservoir at Maymyo and construction was begun with convict labour. In the Bassein District the screw-pile jetty at Kangyidaung was completed. Two landing stages were constructed at Thayagon and Thayaukmyaik in the Myaungmya District. Considerable progress was made with the construction of the jetty at Andrew Bay in Sandoway. The improvements to the China Bakir Lighthouse were completed, the new light being first exhibited in December 1916. The improvements to the landings at the Alguada Reef Lighthouse were nearly completed. The construction of bazaars was completed in ten towns mainly in the Irrawaddy Division and the Northern Shan States. New bazaars were in process of construction at three towns, and improvements to bazaars were being carried on in four other towns in the Province. The water-supply schemes at Kalaw, Ma-ubin and Minbu were brought near to completion. Schemes for supplying Pyawbwè and Yamèthin with water were in hand, and a start was made with a scheme for supplying Aungban in the Southern Shan States. Three tube-wells were successfully sunk at Myingyan. Unsuccessful attempts to obtain water by means of tube-wells were made at Pyinmana, Paungdè, Yamèthin and Meiktila. A scheme for the drainage of part of the town of Akyab was completed, and a scheme for Toungoo nearly completed. A scheme for the drainage of Pwinbyu in the Minbu District was started. Expenditure on Town Lands Reclamation works in Rangoon amounted to Rs. 3½ lakhs. Practically nothing was done in the way of actual land reclamation owing to lack of funds and the work done consisted in making roads, surface-drains and sewers in areas already reclaimed.

Military works.

130. The total expenditure on military works was Rs. 5·28 lakhs as against Rs. 5·25 lakhs in the previous year. A second-class operating-room for the Hospital for Indian troops at Mandalay was nearly completed. At Maymyo, temporary barracks in the Gurkha lines were built at a cost of Rs. 67,256. The improvements to the rifle-range at Thamaing were practically completed at a cost of Rs. 78,477. Good progress was made on the construction of four more quarters for Sergeant-Instructors of Volunteers at Rangoon. At Pegu improvements were carried out to the Sergeant Instructor's quarters, Burma Railways Volunteer Corps at a cost of Rs. 2,599 and at Tavoy quarters for a Sergeant Instructor, an armoury, drill hall, kit-store and office were completed at a cost of Rs. 22,204. At the camp for prisoners of war at Thayetmyo, weather screens were provided for all temporary barracks in the North Camp and temporary bungalow accommodation for 20 officers in the South Camp. Within the Fort the construction of accommodation for the British Infantry detachment and of temporary accommodation for the Garrison Company, including two quarters for Indian officers, was completed.

(*ii*) *Railways and Tramways.*

Railways: construction and surveys.

131. The railways of the Province are worked by the Burma Railways Company, Limited. No additions were made to the length of open line and it remained at 1,598·46 miles. No lines were under construction during the year. The report and estimates for the proposed coast-route line to connect Burma with India were

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still under consideration during the year but no conclusion was arrived at even as to whether the coast-route should be adopted in preference to the Hukong Valley route. During the year the question of the suitability of the proposed alignment and the waterways and level crossings of the proposed Aungban-Heho extension of the Southern Shan States Railway was under discussion between the Railway Board and the Local Government. It was decided that the extension to Heho should be proceeded with as soon as possible. Consideration of a proposed further extension into the Inle Lake Valley was postponed till after survey as in the opinion of the Government of India, the terminus at Heho will meet all requirements for the present and the immediate future. The survey of the proposed branch line in the Henzada District from Kyangin to Petye was completed during the year, and the report and the estimate were under consideration. The Buthidaung-Maungdaw Tramway has been taken over by the Arakan Light Railway Company, Limited, and negotiations were in progress during the year between the new Company and the Railway Board as to the terms of working. In the first of the new Company's reports the hope is expressed that the line will be completed in February 1918. A proposal was received from a syndicate styled the Tenasserim Railway and Trading Syndicate for the establishment of a railway-system in certain parts of the Tenasserim Division and was under consideration in the year of report.

Accidents and interruptions.

132. During the year there were in all six railway accidents due to causes other than floods. Traffic was interrupted temporarily, but there was no loss of life or serious injury to persons. The most serious accident occurred at Okpo station on the Prome line on the 24th November 1916, when a mixed train collided with a goods train in consequence of the driver of the latter having run against signals. No one was hurt. The two engines were interlocked, five wagons were wrecked and four others damaged. The total damage amounted to Rs. 7,850. The offending driver was prosecuted and sent to jail for three months. Two passengers were slightly injured on the main line near Yamèthin by the derailing of a train owing to the driver prematurely applying the brakes. Of the other derailments, one, on the main line, was due to wilful mischief ; two, on the Mogaung-Myitkyina line, were due to buffaloes disputing the passage of trains ; and one was due to a fault of the permanent way. Floods caused breaches of the line and interruption of traffic in twelve instances during the year. On the 14th September 1916 the Mogaung-Myitkyina line between Bonchaung and Meza stations was breached owing to a flood, and the engine and ten goods vehicles of a mixed train were precipitated into the gap. No passengers were injured. One fireman was slightly hurt. Damage to the extent of over Rs. 10,000 was done. On the night of the 30th September a sudden flood, due to the bursting of an irrigation-weir, caused a breach on the main line near Minzu station. A goods train dropped into the breach and sixteen wagons were wrecked. The driver and two firemen were slightly injured. Damage to the amount of Rs. 10,000 was done. During the same night several breaches were made in the line a few miles further north, which occasioned a total suspension of traffic for 3½ days. Damage by floods also caused interruptions to traffic on the main line between Thagaya and Yeni stations in July and near Thawati station in September ; on the Mogaung-Myitkyina line between Kawlin and Wuntho stations in July ; on the Sagaing-Alon line, between Kyehmon and Mônywa stations in June and between Ywataung and Legyi stations in September ; on the Mandalay-Lashio line, at the Gokteik Viaduct in September ; and to the Southern Shan States line at Lebyin in October. Persistent trouble was caused by landslips, due to floods, into a cutting south of Yinmabin station on the Southern Shan States line. Traffic was interrupted in August and twice in October. At the same place in February, traffic was again interrupted and four coolies injured, two fatally, by the fall of a piece of rock, following some blasting operations.

Traffic and finance.

133. The number of passengers carried by the Burma Railways Company during the year was 29,030,278 as compared with 27,738,360 in 1915-16. The gross earnings were Rs. 2,47·28 lakhs, an increase of Rs. 26·46 lakhs on the previous

year's figures, while working expenses were down by Rs. 97,000 to Rs. 1,28·68 lakhs. The net earnings thus rose from Rs. 91·17 lakhs to Rs. 1,18·6 lakhs. On the main line the capital outlay during the year was Rs. 10·32 lakhs, which raises the total capital outlay since the commencement of operations to Rs. 17,91·24 lakhs. The total mileage run by trains increased from 4,767,702 miles to 4,804,258 miles. Gross earnings increased by Rs. 23·35 lakhs to Rs. 2,23·20 lakhs and there being a decrease of some Rs. 62,000 in working expenses, net earnings rose from Rs. 84·33 lakhs to Rs. 1,08·30 lakhs. The percentage of expenses to earnings was 51·48 as against 57·80 in the previous year and net receipts amounted to 5·96 per cent. of the capital outlay as against a corresponding figure of 4·80 in 1915-16. The total capital outlay on the Pegu-Moulmein Railway was reduced during the year by Rs. 5,298 and stands at Rs. 1,55·19 lakhs. The train mileage increased from 365,827 to 381,445 miles. Gross earnings increased from Rs. 14·63 lakhs to Rs. 17·56 lakhs and working expenses fell from Rs. 8·94 lakhs to Rs. 8·92 lakhs. The net earnings were therefore Rs. 8·6 lakhs as against Rs. 5·7 lakhs in the previous year. The ratio borne by working expenses to gross earnings fell from 61·09 per cent. to 50·81 per cent. and the net receipts amounted to 5·57 per cent. of the capital outlay, as against 3·67 in 1915-16. On the Henzada-Kyangin Railway the total capital outlay decreased during the year by Rs. 26,163 to Rs. 64·95 lakhs. The train mileage decreased from 107,073 to 104,170 miles. Gross earnings increased from Rs. 2·94 lakhs to Rs. 3·13 lakhs and there being an increase in working expenses from Rs. 2·01 lakhs to Rs. 2·03 lakhs net earnings rose by Rs. 17,290 to Rs. 1·1 lakhs. Working expenses amounted to 64·86 per cent. of the gross earnings as against 68·47 per cent. in the previous year and net receipts represented 1·69 per cent. of the capital outlay as against 1·42 in 1915-16. On the Southern Shan States line capital outlay on the completed portion from Thazi to Aungban was reduced during the year by Rs. 2·37 lakhs to Rs. 1,53·51 lakhs. The train mileage decreased from 111,404 to 86,432 miles. Gross earnings decreased slightly from Rs. 3·39 lakhs to Rs. 3·38 lakhs and working expenses considerably from Rs. 3·18 lakhs to Rs. 2·83 lakhs. Net earnings rose from Rs. 21,413 to Rs. 55,277 and represented 0·36 per cent. of the total capital outlay as against 0·14 per cent. in the previous year. The percentage of expenses to gross earnings was 83·65 as against 93·68 in the previous year.

Tramways.

134. The total number of passengers carried by the Rangoon Tramways during the year was 10,860,629, an increase of 49,223 over the previous year's figures. The running mileage was computed at 1,435,286 as against 1,446,512 in the preceding year. The total receipts amounted to Rs. 8,52,956 as compared with Rs. 8,61,301 in the previous year. In Mandalay the Burma Electric Tramways and Lighting Company carried a total number of 2,676,900 passengers with a total mileage run of 508,960 miles as against corresponding figures of 2,559,101 and 502,507 in the previous year. The receipts were Rs. 2·15 lakhs as against Rs. 2·03 lakhs. The Mandalay-Madaya light railway was completed in March 1917 but was not open for passenger traffic at the close of the year.

(*iii*) *Canals.*

135. The Pegu-Sittang Canal in the Pegu District is maintained out of canal dues and used solely for navigation. On this canal, the water hyacinth (*Eichhornia Crassipes*) again gave trouble during the year, and a large part of the funds provided for the maintenance of the canal had to be spent on weed-extraction. To cope with this pest various expedients were adopted, which, though not entirely successful, at least prevented the canal being blocked for any considerable length of time. Various repairs were done to the sluice-gates. A sum of Rs. 60,500 was spent on repairs to the Abya Sluice. The Suction Dredger worked from November to January in the shallow area between miles 33 and 34. Measurements in one length showed that, three weeks after dredging operations ceased, the canal-bed had come back to the same level as before operations began, a result which, as no silt is being deposited, can be due only to the weight of the high banks

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squeezing the bed up. The cost of maintaining the canal was Rs. 1·82 lakhs as against Rs. 1·39 lakhs in the previous year. Receipts increased from Rs. 1·67 lakhs in 1915-16, to Rs. 1·73 lakhs. The expenditure during the year on the scheme for improving the Twante Canal, the chief waterway between the Rangoon river and the China Bakir River, appears in the accounts as *minus* Rs. 63,577. This apparent anomaly is accounted for by the fact that the dredger "Oswald" was taken over by His Majesty's Government for service in Mesopotamia at her depreciated value of Rs. 7·61 lakhs. Of the total sum expended, Rs. 3·21 lakhs were spent on excavation by dredging, by which means 807·5 lakhs cubic feet of earth were extracted. A sum of Rs. 94,870 was spent on the maintenance of dredgers and launches. Two dredgers and two launches were sent to Mesopotamia at the end of the year. Laterite pitching at the New Cut accounted for an expenditure of Rs. 1·29 lakhs. The Shwetachaung Canal is partly used for irrigation and partly for navigation, serving the local traffic between Mandalay and Madaya. The damage done by floods in the previous year was repaired, various minor improvements were made and the ordinary maintenance works carried out at a total cost of Rs. 1,155.

Irrigation.

Major irrigation works.

136. There are in the Province four irrigation works classed as Major Works —the Mandalay Canal, the Shwebo Canal, the Môn Canals and the Ye-u Canal. The total amount of capital outlay in connection with these canals at the end of 1916-17 amounted to Rs. 2,10·31 lakhs of which Rs. 5·42 lakhs was expended during the year. The total area receiving benefit increased from 277,792 acres to 282,447 acres; revenue receipts fell from Rs. 16·59 lakhs to Rs. 15·11 lakhs; working expenses fell from Rs. 6·46 lakhs to Rs. 6·17 lakhs and net revenue amounted to Rs. 8·94 lakhs as against Rs. 10·13 lakhs in the previous year, representing a return of 4·2 per cent. on the total capital outlay including that portion expended on the unfinished Ye-u Canal. The area irrigated by the Mandalay Canal was 63,084 acres as against 60,451 acres in 1915-16. This area is the largest on record, the previous best being 62,967 acres in 1913-14. A further expansion is to be looked for as the high level pipes from the main canal are expected to irrigate a larger area; and the area irrigated from the Kinbat Distributary will be increased when some areas now covered with jungle are brought under cultivation. The gross revenue increased from Rs. 3·55 lakhs in 1915-16 to Rs. 4·05 lakhs and, working expenses being Rs. 1·70 lakhs as against Rs. 1·5 lakhs, the net revenue rose from Rs. 2·05 lakhs to Rs. 2·35 lakhs. The net revenue represents a return of 4·12 per cent. on the capital outlay. The gross revenue is the highest ever recorded. The increase in the year of report, however, is only partly due to the increase in the area irrigated, as there were large recoveries of water-rate and land revenue tax due in the previous year. The working expenses include an outlay of Rs. 47,844 on the reconstruction of the head weir. The area irrigated by the Shwebo Canal was 161,274 acres as against 165,287 acres in 1915-16. The gross revenue fell from Rs. 8·15 lakhs in 1915-16 to Rs. 7·80 lakhs and working expenses from Rs. 2·86 lakhs to Rs. 2·74 lakhs. Thus the net revenue fell from Rs. 5·29 lakhs to Rs. 5·06 lakhs. The net revenue represents a return of 8·54 per cent. on the capital outlay. The falling off during the year is due to a shortage in the supply of water from the river in the early part of the season and also to part of the area being given over to the cultivation of wheat which crop is assessed at a lower rate than rice. The area irrigated by the Môn Canals was 58,089 acres as against 52,054 acres in 1915-16. The increase is due to the favourable season and especially to the absence of floods. The gross revenue fell from Rs. 4·89 lakhs in 1915-16 to Rs. 3·26 lakhs. The decrease is due to the fact that outstandings of 1914-15 amounting to Rs. 1·95 lakhs were realized in 1915-16. Working expenses fell from Rs. 2·1 lakhs to Rs. 1·73 lakhs and net revenue from Rs 2·79 lakhs to Rs. 1·53 lakhs. The net revenue represents a return of 2·7 per cent. on the capital outlay. The Ye-u Canal is still under construction. During the year a total sum of Rs. 5·52 lakhs was expended, bringing the total expenditure on this canal up to Rs. 37·25 lakhs.

Minor irrigation works.

137. Of the Minor Irrigation Works in the Province the most important from the revenue point of view are the Zawgyi and Panlaung River systems in the Kyauksè District and the Man and Salin Canals in the Minbu District. The area irrigated by the Zawgyi and Panlaung systems was 89,189 and 59,726 acres respectively, in each case a slight increase on the figures for the previous year. The Man Canals irrigated 16,851 as against 15,580 acres in the previous year, and the Salin Canals 27,957 as against 23,148 acres. The increase in the Man area is due to the favourable season, also to reduction of rents by landlords. Other Minor Works sufficiently important to merit notice are the following:—

The Shwetachaung Canal in the Mandalay District irrigated 16,235 acres as against 14,866 acres in the previous year. The Mu Canal in Shwebo irrigated 12,013 as against 12,645 acres. In the Meiktila District the area irrigated from the Meiktila Lake rose from 24,492 acres in 1915-16 to 46,292 acres and that irrigated from the Nyaungyan-Minhla tank from 16,969 acres to 27,133 acres. In Yamèthin the area irrigated from the Kyauksè tank rose from 2,986 acres in 1915-16 to 8,293 acres. A legion of small Minor Works in Upper Burma irrgated 79,977 acres in the year of report as against 45,570 acres in the previous year. The most notable fluctuations from last year's level are a drop from 11,567 acres to 8,223 in Shwebo and a rise from 20,013 acres to 37,287 in Yamèthin. The total area irrigated from Minor Irrigation Works was 383,666 acres as against 299,218 in 1915-16. The gross receipts from Minor Irrigation Works in Upper Burma was Rs. 15·16 lakhs, working expenses were Rs. 6·20 lakhs and net revenue Rs. 8·96 lakhs as against corresponding figures of Rs. 12·52 lakhs, Rs. 68·3 lakhs and Rs. 5·69 lakhs in the previous year.

CHAPTER V.

REVENUE AND FINANCE.

REFERENCES—

Report on the Land Revenue Administration of Burma during the year ended the 30th June 1917.
Administration Report of the Public Works Department, Burma, (Irrigation) for the year 1916-17.
Report on the Maritime Trade and Customs Administration of Burma for the official year 1916-17.
Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the official year 1916-17, Part I, Foreign Trade.
Report on the Administration of the Excise Department in Burma during the year ended the 31st March 1917.
Report on the Administration of Salt Revenue in Burma during the year 1916.
Report on the Administration of the Stamp Revenue in Burma for the years 1914-15 to 1916-17.
Report on the working of the Income-tax Act, II of 1886, in Burma for the years 1914-15 to 1916-17.
Report on the Forest Administration of Burma for the year 1916-17.
Report on the working of the Rangoon Municipality for the year 1916-17.
Report on the Reclamation of Rangoon Town Lands for the year 1916-17.
Resolution reviewing the Reports on the working of Municipal Committees in Burma (except Rangoon) during the year 1916-17.
Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volume II.
Statistical Abstract for British India, Volumes II and IV.

Provincial Settlement.

138. The receipts and expenditure of the Province, other than those pertaining to Local authorities, are divided between the Imperial and Provincial Governments in accordance with the terms of what is known as the Provincial Settlement. The existing Provincial Settlement was drawn up in 1907, but its terms were modified in 1911 with a view to converting large fixed assignments which the Province then received from Imperial Revenues, into shares of growing revenue. The original Provincial Settlement was described in the General Administration Report of 1907-08, and the subsequent modifications were summarised in the General Administration Report of 1911-12. In 1915-16, in view of the fact that the Provincial Settlement had proved less favourable to the Province than had been anticipated, an additional recurring assignment from Imperial to Provincial Revenues of Rs. 15·11 lakhs was sanctioned. There was no fresh modification of the Provincial Settlement in the year of report.

Gross Revenue and Expenditure.

139. The gross receipts for the Province for the year of report amounted to Rs. 12,72·11 lakhs, as against Rs. 11,42·23 lakhs in the previous year, and the gross expenditure to Rs. 8,76·42 lakhs, as against Rs. 8,75·93 lakhs in the previous year, receipts thus showing an increase of Rs. 1,29·89 lakhs and expenditure an increase of Rs. ·50 lakh. Receipts classed as Imperial rose by Rs. 64·05 lakhs to Rs. 4,29·29 lakhs, and receipts classed as Provincial rose by Rs. 39·01 lakhs to Rs. 5,93·34 lakhs. Receipts of District Funds rose by Rs. 10·45 lakhs to Rs. 55·22 lakhs, and receipts of Municipal Funds rose by Rs. 4·05 lakhs to Rs. 1,05·58 lakhs. Imperial expenditure decreased by Rs. 10·78 lakhs to Rs. 61·62 lakhs, and Provincial expenditure decreased by Rs. 5 lakhs to Rs. 5,59·06 lakhs. Expenditure from District Funds rose by Rs. 3·5 lakhs to Rs. 56·62 lakhs, and that from Municipal Funds fell by Rs. 2·91 lakhs to Rs. 1,09·38 lakhs. The receipts and expenditure from other funds were respectively Rs. 88·68 lakhs and

Rs. 89·75 lakhs, as against corresponding amounts of Rs. 76·35 lakhs and Rs. 74·06 lakhs in the previous year.

These figures include the transactions of the Rangoon and Moulmein Municipalities, the Rangoon Port Trust, and the Rangoon Pilot Fund, though they do not bank with Government.

(*a*) *IMPERIAL REVENUE AND FINANCE.*

[*In this section are discussed sources of Revenue or Expenditure which are partly, as well as those which are wholly, Imperial.*]

Total Imperial figures: notable variations.

140. The net increase of Rs. 64·05 lakhs in Imperial receipts is the result of a gross increase of Rs. 64·82 lakhs, occurring mainly under eight heads, and a decrease of Rs. 76,800, occurring mainly under four heads. The receipts under the head "Land Revenue" rose by Rs. 3·71 lakhs, due to a good agricultural season, to enhanced demands of land-tax as a result of the re-settlement of three Districts, to increased returns from the auction-sales of fisheries and to increased output of minerals and precious stones. Receipts from opium increased by Rs. 1·53 lakhs, receipts from salt by Rs. 6·37 lakhs, and receipts from stamps by three-quarters of a lakh of rupees. There was an increase of Rs. 3·6 lakhs under Excise, of Rs. 33·29 lakhs from Customs, and of Rs. 7·65 lakhs from Income-tax. Under the head "Transfers between Imperial and Provincial" there was an increase of Rs. 7·76 lakhs due to the reduction of the contribution from Imperial funds for the constitution of the new frontier District of Putao and the occupation of Hpimaw. Of the heads under which there was a decrease, the principal is "Irrigation," receipts under which fell by Rs. 36,790 as a result of smaller receipts from the Môn and Shwebo Canals. This entailed another decrease of Rs. 21,922 under the head 'Portion of Land Revenue due to Irrigation.' There was also a decrease of Rs. 9,607 from Tribute and of Rs 8,467 in receipts in and of superannuation.

In expenditure there was a gross decrease of Rs. 13·61 lakhs, occurring mainly under three heads, and against this an increase of Rs. 2·83 lakhs mainly falling under five heads. There was a decrease of Rs. 40,822 under the head "Irrigation—Major Works" and a decrease of Rs. 9·91 lakhs under "Capital Expenditure on Major Works." Expenditure on Civil Public Works fell by Rs. 3·19 lakhs. There was an increase of Rs. 1·26 lakhs under "Refunds and Drawbacks" due to larger refunds from Customs, Tributes, Land Revenue and Income-tax. The only other considerable increase is one of Rs. 88,846 under the head "Customs."

Land Revenue.

Land revenue receipts.

141. The gross receipts under "Land Revenue" for the financial year ending 31st March 1917 were Rs. 4,73·71 lakhs, as against Rs. 4,64·18 lakhs in the previous year. Under the terms of the Provincial Settlement by which three-eighths of the receipts under this head are allotted to Imperial and five-eighths to Provincial Funds, Rs. 1,76·24 lakhs were credited to Imperial and Rs. 2,97·47 lakhs to Provincial Funds respectively, as against corresponding amounts of Rs. 1,72·53 lakhs and Rs. 2,91·65 lakhs in the previous year. Expenditure under Land Revenue, which is wholly debitable to Provincial Funds, was Rs. 68·55 lakhs as compared with Rs. 70·94 lakhs in the previous year. Land Revenue proper, of which the collections during the year amounted to Rs. 3,00·78 lakhs, as against Rs. 2,88·72 lakhs in the previous year, is dealt with under Chapter II of this Report. The head "Land Revenue" also includes receipts from sources other than the land-tax. Collections of capitation-tax in Lower Burma amounted to Rs. 57·25 lakhs as compared with Rs. 56·68 lakhs in 1915-16. The number of persons assessed to capitation-tax was 1,421,443 some 12,000 more than in the previous year. As compared with the year immediately preceding the war, the number of assessees was smaller by 874 only, while the demand was Rs. 70,432 larger. A larger

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demand in proportion to the number of assessees has been a noticeable feature since the outbreak of war, and indicates a steady growth of the permanently resident population, to which the married couples mainly belong, together with diminution of the temporary immigration of workers, mostly single men, from India. Remissions were down by some Rs. 16,000 to Rs. 1·4 lakhs, and outstandings at the close of the year were Rs. 1,165 as against Rs. 575 in the previous year. Collections of land-rate in lieu of capitation-tax amounted to Rs. 93,584, which is practically the same as in the previous year. The number of households assessed to *thathameda* was 883,783, being 8,248 more than in the previous year. Remissions, however, were heavier, largely owing to damage done by late floods in the Chindwin, and the collections were Rs. 39·69 lakhs, an increase of only Rs. 20,894 on the previous year's figure. Receipts under fishery revenue amounted to Rs. 31·19 lakhs as compared with Rs. 29·95 lakhs in 1915-16. The demand showed a recovery of about a lakh and a quarter of rupees from the low figure of 1915-16, despite a fall by over Rs. 20,000 in license fees. The price of salt continued high, the market was comparatively poor, the season was mediocre, and the lease-rents were in some cases paid with difficulty. Remissions totalled Rs. 31,760 as against Rs. 31,295 in the previous year, and outstandings rose from Rs. 10,430 to Rs. 12,539. Collections of "Miscellaneous Land Revenue" amounted to Rs. 41·67 lakhs, very nearly five lakhs of rupees less than the previous year's total. Of the sub-heads under this main head Rents of Town Lands not credited to Local Funds fell by Rs. 4,388 to Rs. 2·59 lakhs. Fees, rents and royalties on petroleum, rubies, jade and amber decreased by over Rs. 6½ lakhs to Rs. 32·25 lakhs. Receipts from petroleum declined by over Rs. 7½ lakhs owing to exhaustion of some of the oil sands and to temporary interruptions of work. Royalties on jade-stone decreased by Rs. 37,300 to Rs. 85,500. The recovery of the trade in rubies that had marked the previous year was continued in 1916-17 and largely in consequence receipts from royalties on precious stones increased by over Rs. 52,000. Fees, rents and royalties on other minerals rose by Rs. 1·56 lakhs or 64 per cent. to Rs. 3·99 lakhs and are the highest ever recorded. The Tenasserim Division alone accounts for the whole of the increase. The Tavoy receipts rose from Rs. 1·6 lakhs to Rs. 2·79 lakhs chiefly on account of an increase of over a lakh of rupees in royalties on wolfram. Royalties on tin rose from Rs. 207 in 1915-16 to Rs. 2,228. Receipts under the Village Act rose from Rs. 2·1 lakhs to Rs. 2·17 lakhs, and survey fees from pottas rose from Rs. 10,624 to Rs. 26,777.

Canal (Navigation and Irrigation) Revenue.

142. The concluding paragraphs of Chapter IV deal with the canals and irrigation works of the Province and the revenue obtained from them during the year of report. Receipts and expenditure on Major Irrigation works are wholly Imperial. Those of the other works referred to in the paragraphs above mentioned are wholly Provincial.

Sources of Imperial Revenue other than the Land.

Customs.

143. Both receipts and expenditure under the head Customs are classified as Imperial. Receipts under this head do not include the import duty on salt, which is classed under the head "Salt." The total collections for the year under the head Customs amounted to Rs. 1,52·76 lakhs as against Rs. 1,19·47 lakhs in the previous year, an increase of Rs. 33·29 lakhs. Receipts from exports rose by Rs. 10·29 lakhs to Rs. 61·88 lakhs, and receipts from imports rose by Rs. 22·29 lakhs to Rs. 89·05 lakhs. The reasons for these increases are discussed in the paragraphs of this Report that deal with Trade. The expenditure on Customs was Rs. 7·20 lakhs as against Rs. 6·31 lakhs in the previous year. The increase in expenditure was mainly due to larger expenditure on the appraising establishment, in steam launch charges and allowances, and to the payment of fees for Sunday labour. The net revenue from Customs was Rs. 1,45·56 lakhs as against Rs. 1,13·16 lakhs in the previous year.

Opium.

144. Under the Imperial Accounts head "Opium" there is no expenditure in Burma, and receipts include only the payments made by the Government of Burma to the Government of India for the purchase of opium. All other receipts and expenditure in connection with opium are included under the head "Excise" which is noticed below. In the year of report the Government of Burma expended on the purchase of opium a sum of Rs. 5·19 lakhs as against Rs. 3·66 lakhs in the previous year. The increase is in part due to the enhancement of the rate charged by the Government of India.

Salt—General.

145. No change in the law or procedure took place during the year but a Burma Salt Act (since passed into law) was under preparation. The customs duty on imported salt was raised with effect from the 1st April from Re. 1 to Re. 1-4-0 per maund and the excise duty on local salt was raised with effect from the 15th April from 12 annas to Re. 1 per maund in the seven Districts where duty is levied on the outturn. The cost of the salt establishment was Rs. 45,444 as against Rs. 46,066 in 1915 and the proportion of cost to revenue in the seven direct-duty Districts 5·86 per cent. as against 9·81 per cent. The decrease in proportion of cost to revenue was due to increased revenue.

Supplies of Salt.

146. Scarcity of shipping and high freights had in the previous year caused a large reduction in the quantity of foreign salt imported into the Province. Towards the end of that year the price of salt was nearly double the normal price and stocks in bond were very low. The result was to stimulate both the production of local salt and the importation of foreign salt in 1916. The output of salt in the seven Districts under the system of direct taxation was 993,091 maunds as compared with 718,405 maunds in 1915. In the other Districts, under the system of composition duty, the estimated output for the year was 62,432 maunds, as against an estimated output of 57,996 maunds in the previous year. The number of licenses in the Districts under direct taxation rose from 252 to 259, Bassein, Amherst and Myaungmya having increases of 4, 2 and 1 respectively. In the Districts in which the system of composition duty is in force, the number of licenses rose from 811 to 878, the number of cauldrons rose from 796 to 870, while the number of pots fell from 131 to 127. Of the eleven Districts, excluding the Upper Chindwin, 6 had an increased and 5 a decreased estimated output. In the Upper Chindwin the output increased from 56 maunds to 354 maunds. In the direct-duty Districts the quantity of locally-made salt issued from bond during the year was 855,562 maunds, an increase of 227,249 maunds, or 36 per cent., on the previous year's figures. In the Districts under the system of composition duty, the revenue demand increased by Rs. 2,711, or 12 per cent., to Rs. 25,186. The demand in the direct-duty Districts increased from Rs. 4·7 lakhs to Rs. 7·75 lakhs. Imports of foreign salt increased by 455,708 maunds, or 31 per cent., to 1,918,232 maunds. Since 1897 these figures have been exceeded only in 1911 and 1914. Clearances from bond increased by 122,505 maunds, or a little over 8 per cent., to 1,592,308 maunds. The duty realized increased by Rs. 4,37,405 or nearly 30 per cent. to Rs. 19,07,208. Imports from the United Kingdom rose from 239,126 maunds in 1915 to 423,868 maunds. Imports from Aden rose from 302,216 maunds to 589,970 maunds, imports from Egypt from 104,806 maunds to 438,278 maunds, while imports from Spain declined from 550,079 maunds to 426,028 maunds. Importations of salt from India which rose from 8,979 maunds in 1914 to 265,574 maunds in 1915 fell to 40,044 maunds in the year of report. At the close of the year the amount of Burma-made salt in bond was 101,719 maunds as against 61,238 maunds twelve months earlier, while stocks of imported salt in bond had increased from 302,955 maunds to 547,843 maunds. Imports of salted fish declined by 25 per cent. to 102,077 maunds, and the duty thereon by 9 per cent. to Rs. 45,327, the figures in each respect being the lowest on record. There was an increase in importations of the wet variety and a large decrease in the dry variety. The decrease is attributable to tightness of the money market and to better prices being obtainable in the Straits Settlements. The total revenue derived from salt and saltfish during the year was Rs. 27·53 lakhs, as against Rs. 20·11 lakhs in the previous year.

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Excise—General.

147. The gross receipts derived from excise amounted to Rs. 88·24 lakhs as compared with Rs. 81·15 lakhs in 1915-16 an increase of Rs. 7·09 lakhs or 8·7 per cent. In these figures is included only the net gain on issues of excise opium (*i.e.*, the proceeds from the issues of opium *minus* the cost price to Government), whereas in former years the proceeds were shown as revenue and the cost debited as a charge. Making allowance for this, the figures constitute a record. Revenue from liquors rose by Rs. 1·75 lakhs or 3·8 per cent. to Rs. 47·83 lakhs. The total receipts from opium rose by Rs. 5·29 lakhs or 15·6 per cent. to Rs. 39·25 lakhs. The total expenditure on the conjoint Salt and Excise establishments fell by over 1 per cent. from Rs. 12·53 lakhs to Rs. 12·36 lakhs. The largest item in the decrease is a fall in refunds owing to more accurate forecasting by licensees of the profits of their shops.

Excise—Opium.

148. The total revenue derived from opium increased by 15·6 per cent. to Rs. 39·25 lakhs. The bulk of this total increase of Rs. 5·29 lakhs consists of an increase of Rs. 5·07 lakhs in the net gain on issues of Excise opium. This was due to increased issues of opium and to an increase in the wholesale price. The balance of the increase is made up by an increase in the receipts from license fees from Rs. ·91 lakh to Rs. 1·12 lakhs. The total quantity of opium issued, both excise and confiscated, rose by 5,192 seers to 48,539 seers, slightly more than the whole of the increase being in issues of excise opium. Issues increased in 22 Districts, remained the same in one (Salween), and decreased in 9 Districts. The continued scarcity of shipping has decreased imports of illicit opium, thus making consumers go to the Government shops for their supply. There was a very large increase of 2,182 seers in Rangoon Town, due to immigration of Chinese into Rangoon, owing to political troubles in China, and to the closing of the Chinese clubs, which caused Chinamen who had been catered for in these establishments from illicit sources, to resort to the Government shops. The influx of Chinese is responsible also for considerable increases in Pegu, Myaungmya, Ma-ubin and Pyapôn. Mining development is responsible for an increase of 1,097 seers in Tavoy. The scarcity of Chinese opium and the consequent rise in the price of illicit opium to a level above the Government retail rate, was the main factor in a general increase in the northern Districts of the Province. The only noteworthy decrease was in Toungoo where issues fell by 101 to 1,226 seers, in consequence of the emigration of consumers in search of employment. The incidence of consumption per 100 of the total population rose from ·41 seer to ·45 seer. The rise is attributable to decreased facilities for obtaining illicit opium. Smuggling declined during the year. Smuggling by sea has diminished owing to the curtailment and disorganisation of the steamer services. Smuggling by land from China and the Shan States has diminished as opium finds a better market in China than in Burma. The hawking of shop opium has declined owing to the stricter supervision of allowances. The number of persons arrested for offences under the Opium Act fell from 2,925 in 1915-16 to 2,672 and the number of convictions from 2,411 to 2,179. The percentage of convictions fell from 82·4 to 81·5. The total quantity of opium seized fell by 8·01 per cent. to 1,360 seers. The conviction of a Jewish smuggler for possession of opium concealed in tins of Talcum face-powder brought to light the operations of a powerful syndicate of Jewish smugglers in Calcutta. The wholesale price of opium issued was raised by Rs. 5 per seer in the case of all shops except three for which the increase was larger. During the year sanction was given for a general revision of the wholesale rates with the object of fixing them so as to give licensees an uniform gross profit of Rs. 10 per seer on the estimated sales, the normal wholesale price being varied according to a definite scale where sales are either very large or very small. Retail prices were raised one anna per tola all round, following the increase in wholesale prices. During the year the license fees also were revised so as to make them bear the authorised proportion to estimated gross profit, namely one-quarter.

Excise—Liquors.

149. The total quantity of liquors of all sorts imported into Burma was 674,823 gallons, a decrease of 32·1 per cent. on the figures for the previous year.

The decrease in value, however, was only 4·3 per cent. owing to increased cost in the countries of origin and increased freights. Imports of ale, beer and porter fell by 271,598 gallons to 448,223 gallons. Potable spirits decreased in quantity by 50,938 gallons to 196,668 gallons, but rose in value from Rs. 18·94 lakhs to Rs. 19·27 lakhs. Under this head whisky was the largest item, the quantity imported being 80,509 gallons. The issues of fermented malt liquor from the only brewery of the Province rose during the year by 27 per cent. to 191,868 gallons. The duty on the amount manufactured rose by 79 per cent. to Rs. 53,963, a record figure. The increase is due to the larger output and the increase of duty which came into operation near the end of the previous year. Foreign spirit was manufactured during the year at distilleries in Mandalay, Toungoo and Amherst. Clearances from bond of spirit excised at the tariff rate decreased by 26 per cent. to 8,861 London Proof gallons. Issues at privileged rates to troops and military police increased by nearly 38 per cent. to 15,020 gallons. The amount of duty realized rose by Rs. 565 to Rs. 1·54 lakhs. The number of wholesale licenses for the sale of foreign liquors, including imported liquor and local liquor excised at the tariff rate, fell by 2 to 93. The number of licenses for retail sale of foreign liquor in public houses decreased by 5 to 169. Special retail licenses increased by 20 to 155, the increase being more than accounted for by a rise in the number of temporary and of canteen licenses. License fees for the vend of malt liquors fell by 17·1 per cent. to Rs. 23,935, and those for the vend of other foreign liquors by 11·7 per cent. to Rs. 7·22 lakhs. The total issues of country spirit which is regulated on the contract distillery system increased by 8·7 per cent. to 78,459 gallons while duty increased by 12·5 per cent. to Rs. 3·57 lakhs. The increase is at the expense of the more costly foreign liquors and is due to economy enforced by war conditions. Out of 16 Districts, 9 showed increased issues. The principal increases were in Rangoon, Thatôn, Tavoy and Mergui, and the principal decreases in Akyab and Bassein. The number of licenses for the vend of country spirit remained at 144 the same as in the previous year. License fees increased by Rs. 2,036 to Rs. 2·51 lakhs. There was no change in the position or number of outstills or of shops licensed for the vend of outstill liquor. Receipts fell by 6 per cent. to Rs. 17,520. The number of licenses for the sale of *tari* or country fermented liquor fell by 20 to 636. License fees fell by nearly 3 per cent. to Rs. 6,87,214. *Tari* seems to be giving place to other country fermented liquor, especially in Lower Burma. Licenses for the sale of country fermented liquor other than *tari* rose by 5 to 375. License fees rose by 9·8 per cent. to Rs. 25·13 lakhs. The only Districts that showed decreases were Prome, Toungoo and Myitkyina.

For offences relating to country spirit there were 2,412 arrests and 1,916 convictions (79 per cent.) against 2,219 arrests and 1,738 convictions (78 per cent.) in the previous year. Included in the above are 933 convictions for illicit distillation as compared with 861 in 1915-16. For offences relating to country fermented liquor of all classes, there were 4,942 arrests and 3,904 convictions (79 per cent.) against 4,373 arrests and 3,520 convictions (80 per cent.). The convictions in connection with country alcoholic liquor generally rose by 562 or over 10 per cent. to 5,820. Of these, 2,000 took place in five Districts, Tharrawaddy (500), Thatôn (486), Henzada, Amherst and Bassein. Thatôn was easily first in convictions for illicit distillation and Tharrawaddy enjoyed a similar pride of place for convictions in connection with country fermented liquor.

During the year the duty on denatured spirit was abolished.

Ganja, cocaine and morphia.

150. The quantity of ganja seized during the year rose by 50 per cent. to 190,557 tolas (nearly 2·2 tons). Convictions of all kinds rose by 47 per cent. to 738. The use of the drug by others than Indians is negligible. The only reported use of it by Burmans is in the Insein District where 9 out of a total Burmese population of 223,896 are said to be addicted to the drug.

Cocaine licenses rose again by 3 to 40 the same figure as in 1914-15. The amount seized fell a little short of 50 lbs. avoirdupois which is double the figure for the previous year, but 83 lbs. less than that for 1914-15, and less than a quarter of the figures for 1910-11 and 1913-14. Convictions fell by a third to 594,

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Convictions for unlicensed sale show a slight increase. Stocks of German cocaine in the Province are dwindling and recent importations are of Japanese origin.

Licenses for the sale of morphia by pharmacists rose by 3 to 45. Seizures fell by 6 lbs. to just below 14 lbs. avoirdupois. Convictions fell by 34 to 274. This drug seems to be distributed from 8 centres only, namely, Rangoon, one or two villages near Rangoon, Pegu and Ôkkan in the Pegu District, Ôkpo in the Tharrawaddy District, and Henzada and Danbi in the Henzada District.

Stamps.

151. The gross receipts under the Stamp Act and the Court Fees Act amounted to Rs. 36·65 lakhs as against Rs. 35·15 lakhs in the previous year and Rs. 34·28 lakhs in 1914-15. In 1914-15, which included the first eight months of the war there was, as compared with the preceding year, a fall of nearly three lakhs of rupees in receipts under the Stamp Act partly counterbalanced by a rise of one lakh of rupees in receipts under the Court Fees Act. Both these variations were due to the contraction of credit and other business difficulties which followed the outbreak of the war. Since this first year the receipts under both Acts have increased steadily and the total for the year of report is higher than that of any single year since 1911-12. Receipts from the sale of Court-fee stamps increased from Rs. 20·59 lakhs in 1915-16 to Rs. 20·95 lakhs in 1916-17. The rise which marked the first year of the war has thus been maintained. The increase in the year of report is attributable to the payment in Rangoon of a single fee of Rs. 84,657 in an administration case. Receipts from the sale of non-judicial stamps, comprising both engraved sheets, and impressed labels, which two classes of stamps, being used for similar transactions, are dealt with together, rose from Rs. 11·25 lakhs in 1915-16 to Rs. 12·22 lakhs. Receipts from this source were over Rs. 12½ lakhs in each of the two years preceding the outbreak of war. There was a fall of over Rs. 2 lakhs in 1914-15, the first shock of the outbreak of war having brought about a considerable restriction both of commercial transactions and of the business of financing agriculture. Later the blow to agricultural credit produced an increasing number of transactions providing improved security for loans or involving the complete transfer of previously mortgaged land to money-lenders by deeds of sale. The gradual recovery of trade added to the effect of these transactions on the revenue, which in consequence is almost up to the pre-war level. The depressing effect of the war on the money market is reflected in the fall in receipts from stamps for *hundis* or inland bills of exchange. There was a slight recovery in the year of report when receipts rose from Rs. 22,444 to Rs. 31,180. But the average annual receipts for the past triennium are only Rs. 26,870 as against Rs. 48,081 for the previous triennium. Receipts from foreign bill stamps, used for bills of exchange drawn outside British India rose during the year from Rs. 30,092 to Rs. 36,034. The revenue from the sale of other general stamps and miscellaneous receipts rose during the year from Rs. 77,355 to Rs. 79,216. Sales of share-transfer stamps yielded Rs. 13,724 as against Rs. 11,340 in the previous year and stamps for forms of cheques, receipts and brokers' notes Rs. 32,283 as against Rs. 29,555. Receipts from stamps for legal practitioners' licenses fell from Rs. 17,845 to Rs. 14,942. During the year the total number of stamp vendors decreased from 2,509 to 2,313. The large decrease is mainly due to the withdrawal of licenses from village-headmen in the Tharrawaddy District, in consequence of the failure of the attempt begun in 1914-15, to make stamps readily procurable in jungle villages by issuing vendors' licenses to the headmen of important villages. The amount of commission drawn by vendors rose by Rs. 3,093 to Rs. 49,885. No serious misconduct on the part of licensed vendors came to light during the year. The number of cases of insufficiently stamped documents dealt with by the courts decreased from 949 in the previous year to 919 and the amount of duty and penalties realized from Rs. 11,576 to Rs. 10,941. The number of cases dealt with by Collectors on impoundment or adjudication increased from 360 to 398 and the amount realized from Rs. 5,991 to Rs. 6,348. The number of persons brought to trial for offences against the stamp law was 45 and the number of persons convicted

38, as against corresponding figures of 44 and 34 in the previous year. Fines amounted to Rs. 245 and rewards to Rs. 696 as against Rs. 450 and Rs. 823 respectively. The number of reports made to Collectors regarding the valuation of estates in connection with applications for probate or letters of administration was 470, as compared with 409 in 1915-16, and the number of cases in which inquiries were held 423 as against 346. The total of deficit court-fees required was Rs. 10,185, as against Rs. 3,068 in 1915-16, the increase being attributable to one estate of exceptionally high value in Hanthawaddy.

Charges on account of discount and establishment for the sale of stamps increased from Rs. 61,259 to Rs. 63,089, cost of supervision increased from Rs. 24,721 to Rs. 25,177 and cost of stamps from Rs. 6,606 to Rs. 10,041. The total net receipts increased from Rs. 34·11 lakhs to Rs. 35·62 lakhs.

Assessed taxes.

152. Receipts and expenditure under the head "Assessed Taxes" are credited and debited respectively in equal shares to Imperial and Provincial Funds. The Income-tax Act is applicable to the whole of Burma but was completely operative only in Lower Burma and in Mandalay Town. It was not extended to any new areas during the year. The method of assessment and agencies of collection remained unchanged. The Indian Income-tax (Amendment) Act came into force on 1st April 1916, its principal effect being to raise the maximum rate of assessment from 5 pies to one anna in the rupee. Early in 1917 the Indian Income-tax (Amendment) Act of 1917 came into force, its principal provision empowering a Collector to serve a notice on any person whose income in the Collector's opinion is not less than a thousand rupees per annum to furnish a return of his income. The net yield of this tax for the year was Rs. 39·66 lakhs as compared with Rs. 24·52 lakhs in the preceding year. The net collections in Rangoon were Rs. 25·71 lakhs as against Rs. 14·52 lakhs. The number of assessees paying income-tax on "salaries, pensions and gratuities paid by Government" decreased from 5,865 in the previous year to 5,506, while the amount of tax collected from them rose from Rs. 4·03 lakhs to Rs. 5·58 lakhs. The number of assessees to the tax under the head "salaries, pensions and gratuities paid by Local Authorities" was 986 as against 1,046 in 1915-16 and the amount collected Rs. 58,984 as against Rs. 48,613. Nearly two-thirds of the assessees under this head are employees of the Rangoon Municipality or of the Rangoon Port Trust and the decline is due to many of them having gone to the war. The number of persons who paid income-tax on "salaries paid by companies and other private employers" was 5,827 as against 5,584 in the previous year, an increase of 4 per cent., while the amount paid by them increased from Rs. 3·84 lakhs to Rs. 5·02 lakhs. The number of persons assessed in Rangoon in 1916-17 amounted to 4,766, which is 82 per cent. of the Provincial total and 5 in excess of the total for Rangoon in 1913-14. Outside Rangoon, the most important increase occurred in Tavoy where, owing to the recovery of the wolfram industry from the collapse consequent on the outbreak of war, the number of assessees rose from 56 in 1915-16 to 178 in the year of report. The number of companies assessed to income-tax was 67 in 1916-17, as against 64 in the previous year, and payments were Rs. 13·70 lakhs as against Rs. 6·39 lakhs. The increase in the receipts is entirely due to the enhanced rate of taxation and if the old rates had been in force there would have been a decline of over 10 per cent. on the previous year's receipts. In Rangoon there were 148 companies on the register as against 162 in the previous year. Of these 59 were exempted on production of certificates of payment elsewhere, and 33 were declared to be non-assessable. The number of assessees under the head "tax on income from other sources" rose from 14,124 to 14,797 and the amount paid from Rs. 9·14 lakhs to Rs. 14·41 lakhs. Of the total number 3,429 were in Rangoon Town as against a corresponding number of 3,357 in the previous year. Excluding Rangoon Town the number of assessees rose from 10,767 to 11,368. The initial demand amounted to Rs. 19·79 lakhs from 16,923 assessees. The disposal of objections and revisions by Collectors and Commissioners reduced the demand to Rs. 15·97 lakhs payable by 15,183 assessees. Expenditure increased from Rs. 53,425 to Rs. 55,500 the largest figure yet recorded. The cost of collection, however, only amounted to 1·4 per cent. of the total amount

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collected, as against 2·18 per cent. in the previous year. Refunds rose from Rs. 26,157 to Rs. 50,216 of which Rangoon Town was responsible for Rs. 47,213. The outstanding balance at the close of the year was Rs. 1·66 lakhs as against Rs. 20,216 in 1915-16. Rangoon Town and Tavoy account for nearly the whole. The large balance of Rs. 1,10,692 in Rangoon is largely due to one assessee, whose assessment is Rs. 62,500, having been allowed to defer payment till April and there having been a similar delay in the case of two others whose combined assessments exceeded Rs. 28,000. There was an outstanding balance of Rs. 54,217 in Tavoy where, owing to a large increase in the number of assessees and the preoccupation of the District officials with other work, objections to assessments could not be dealt with before the close of the year. The total amount remitted during the year as irrecoverable was Rs. 16,526, a marked decrease on the figures of either of the two preceding years. The total number of coercive processes issued was 421 as against 339 in the previous year. Of the total, Rangoon Town accounted for 175 and Myaungmya District for 212.

(*b*) *REVENUE AND FINANCE OTHER THAN IMPERIAL.*

Provincial Receipts and Expenditure.

Provincial receipts.

153. The Provincial receipts were Rs. 5,93·34 lakhs, as against Rs. 5,54·32 lakhs in the previous year, an increase of Rs. 39·01 lakhs. Increases, occurring mainly under nine heads and totalling Rs. 48·2 lakhs, were partly set off by decreases mainly under four heads amounting to Rs. 9·19 lakhs. There was an increase of Rs. 5·82 lakhs under the head 'Land Revenue,' of Rs. 3·6 lakhs under 'Excise,' of Rs. ·75 lakh under 'Stamps,' of Rs. 2·67 lakhs under 'Minor Works' and of Rs. 26·80 lakhs under 'Forests.' There were small increases under the heads 'Ports and Pilotage,' 'Medical' and 'Scientific.' The large increase under 'Forests' is due to a good floating season. There was a decrease of over Rs. ·28 lakh under the head 'Jails,' of nearly Rs. ·32 lakh under 'Police,' of Rs. ·70 lakh under "Miscellaneous" and of Rs. 7·76 lakhs under the head 'Transfer between Imperial and Provincial.' Considering that the contribution from Imperial Funds was Rs. 7·76 lakhs less than in the previous year, the real improvement in Provincial receipts on the figures of the previous year amounted to Rs. 46·77 lakhs.

Provincial expenditure.

154. The Provincial expenditure for the year was Rs. 5,59·06 lakhs, as against Rs. 5,64·06 lakhs in the previous year. The total decrease of just under Rs. 5 lakhs is the result of a decrease of Rs. 15·7 lakhs, occurring mainly under six heads, partly counterbalanced by an increase of Rs. 10·7 lakhs, occurring mainly under eleven heads. The most outstanding decrease is one of Rs. 10·86 lakhs under the head 'Civil Works—Public Works' due mainly to a smaller outlay on new works. There was a decrease of Rs. 2·4 lakhs in expenditure under the head "Land Revenue," of Rs. ·8 lakh under "Medical," and of Rs. ·95 lakh under 'Political.' There were smaller decreases under 'Sanitation' and 'Stationery.' The head showing the largest increase in expenditure was 'Civil Works—Civil' with an increase of Rs. 4·67 lakhs, due to contributions made to District Funds in Upper Burma for the maintenance of Provincial roads made over to these funds. There was an increase of Rs. 1·61 lakhs under "Ports and Pilotage" due to the enhanced cost of stores and coal and one of Rs. 1·02 lakhs under "General Administration.' There were smaller increases, ranging between Rs. ·62 lakh and Rs. ·26 lakh, under the heads 'Refunds,' 'Forests,' 'Jails,' 'Education,' 'Agriculture,' 'Scientific,' 'Superannuation' and 'Minor Works."

Forests.

155. The Forest Department Report deals with the year ending on the 30th June 1917, and the figures of revenue and expenditure given in it therefore differ from those compiled in the Finance Department. The gross revenue for the year amounted to Rs. 1,27·09 lakhs, as against Rs. 96·64 lakhs in the previous year, an increase of Rs. 30·55 lakhs.

The gross revenue exceeds that of the previous record year, 1912-13, by Rs. 11·33 lakhs. The actual surplus shows an increase of less than a lakh of rupees on the surplus of that year as the expenditure on exploitation has meanwhile increased by over Rs. 8 lakhs and that on establishment by nearly Rs. 3 lakhs.

There was an increase under every head of revenue except that of minor produce extracted by consumers. Under that head there was a fall of Rs. ·55 lakh to Rs. 2·84 lakhs, the decrease being more than covered by a drop of Rs. 1·28 lakhs in the export duty on cutch. The revenue from timber extracted by Government agency rose by nearly Rs. 12½ lakhs to Rs. 27·05 lakhs, mainly owing to a better market. It is practically identical with the revenue of 1912-13, when the price of teak was Rs. 103 per ton, as against Rs. 59-8-0 in the year of report. The revenue from timber extracted by consumers rose by over Rs. 16½ lakhs to Rs. 83·23 lakhs. This was mainly due to a good floating season and to a lesser extent, to a somewhat improved market. The increased consumption of wood fuel, owing to the difficulty of obtaining coal, is responsible for a rise in revenue from produce other than timber extracted by Government agency by some Rs. 28,000 to Rs. 1·94 lakhs, and from firewood and charcoal extracted by consumers by a quarter of a lakh of rupees to Rs. 2·61 lakhs. The total expenditure of the year was Rs. 50·91 lakhs as against Rs. 47·62 lakhs in the previous year. As an economy necessitated by the war, expenditure on the extension and constitution of forests was reduced by over half a lakh of rupees to Rs. 1·15 lakhs, and expenditure on improvement by Rs. 37,000 to Rs. 5·53 lakhs. Expenditure on exploitation rose by over Rs. 4 lakhs to Rs. 18·22 lakhs, an increase due to the progressive extension of departmental operations. The expenditure on establishment rose by Rs. 14,000 to Rs. 8·91 lakhs. The value of stocks of timber and other produce at the sale depôts of the department was Rs. 28·97 lakhs at the beginning of the year and Rs. 25·01 lakhs at its close.

Local Funds.

156. A District Cess Fund is maintained by every District in Lower Burma. No change occurred in the number of such funds during the year. The aggregate receipts of all the funds were Rs. 43·10 lakhs as against Rs. 35·44 lakhs in the previous year, an increase of Rs. 7·67 lakhs. The main constituent items of the increase are one of Rs. 5·7 lakhs under the head 'Civil Works in charge of Civil Officers' and one of Rs. 1·77 lakhs under the head 'Miscellaneous.' Larger contributions sanctioned to the Tavoy and Mergui District Cess Funds for improvements in communication, account for the increase under the former head, while the increase under the latter was mainly due to contributions amounting to Rs. 1·5 lakhs made from Municipal and Local Funds to the Ma-ubin and Myaungmya District Cess Funds. **District Cess Funds.**

The aggregate expenditure rose from Rs. 39·04 lakhs in the previous year to Rs. 42·11 lakhs, an increase of Rs. 3·08 lakhs. There was an increase of Rs. 2·69 lakhs under the head 'Civil Works in charge of Civil Officers' and of Rs. 1·57 lakhs under 'Miscellaneous.' There was a decrease of Rs. 33,500 under 'Civil Works in charge of Public Works Officers' and one of nearly Rs. 49,000 under 'Medical.' Refunds of just under two lakhs of rupees and of one lakh of rupees by the Tavoy and Mergui District Cess Funds, respectively, partly counterbalanced by smaller expenditure under certain heads account for the increase under the head 'Civil Works in charge of Civil Officers.' The increase under 'Miscellaneous' was mainly due to the contribution of Rs. 1·5 lakhs made by the Ma-ubin and Myaungmya District Cess Funds to Local and Municipal Funds. Smaller grants to hospitals and dispensaries account for the decrease under 'Medical.' The decrease under 'Civil Works in charge of Public Works Officers' was largely due to smaller outlay in Hanthawaddy, Insein, Bassein, Ma-ubin, Pyapôn, Toungoo and Thatôn Districts, partly counterbalanced by larger outlay in Henzada, Tavoy and Mergui. All funds were solvent at the close of the year. The aggregate closing balance of all the funds at that date was Rs. 26·51 lakhs as against Rs. 25·52 lakhs twelve months earlier.

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District Funds.

157. Each District in Upper Burma maintains a District Fund. These Funds are not endowed, as the Lower Burma District Cess Funds are, with a cess on land revenue, but derive their income from various sources such as bazaar-rents, slaughter-house licenses, ferries, and contributions from Provincial Funds. The aggregate receipts during 1916-17 of all the District Funds were Rs. 12·12 lakhs as against Rs. 9·34 lakhs in the previous year, an increase of Rs. 2·78 lakhs. The increase arose principally under the heads 'Civil Works in charge of Civil Officers,' 'Miscellaneous' and 'Police.' Contributions from Provincial funds aggregating Rs. 4·74 lakhs received in 1916-17, as against Rs. 3·03 lakhs in the previous year account for most of an increase of Rs. 1·82 lakhs under 'Civil Works in charge of Civil Officers.' Larger receipts from bazaar stall rents, especially in the Mandalay, Ruby Mines, Katha, Sagaing, Kyauksè and Myingyan Districts and contributions of Rs. 5,000 and Rs. 14,000 made by Municipal and Local Funds to the Bhamo and Sagaing District Funds account for an increase of three-quarters of a lakh of rupees under 'Miscellaneous.' An increase of nearly Rs. 22,000 under the head 'Police' was due to large receipts under slaughter-house licenses in Shwebo, Yamèthin and Meiktila. The aggregate expenditure during the year was Rs. 14·50 lakhs, as against Rs. 14·08 lakhs in the previous year. The increase occurred mainly under the heads 'Miscellaneous' and 'Civil Works in charge of Civil Officers' partly counterbalanced by smaller expenditure under 'Civil Works in charge of Public Works Officers.' An increase of over Rs. 46,000 under 'Miscellaneous' was due to contributions granted to local Municipal Funds as well as to contributions from the Pakôkku and Shwebo District Funds to the Magwe, Sagaing, and Lower Chindwin District Funds to cover overdrafts. Large expenditure under 'Boats, Bridges and Ferries,' 'Accommodation for Travellers' and 'Arboriculture' contributed to the increase of nearly Rs. 31,000 under 'Civil Works in charge of Civil Officers.' A decrease of over half a lakh of rupees under 'Civil Works in charge of Public Works Officers' was due to smaller expenditure in most of the Districts. All the Funds had a credit balance at the close of the year. The aggregate closing balance of all the Funds at that date was Rs. 2·8 lakhs as against Rs. 5·18 lakhs twelve months earlier.

Other funds.

158. Other local funds consist of the Cantonment, Town, Port, Pilot, Rangoon Police Reward, Steam-boiler Inspection and Educational Syndicate Funds. The number of Cantonment Funds was seven as in the previous year. Their aggregate opening balance was Rs. 58,078 and the aggregate closing balance on the 31st March 1917 was Rs. 25,932. The total receipts, excluding debt accounts, amounted to Rs. 1,86,604, and the total expenditure to Rs. 2,19,048. The corresponding figures for 1915-16 were Rs. 1,94,944 and Rs. 1,83,568 respectively, so that in the year of report the total income fell by Rs. 8,340 and the expenditure rose by Rs. 35,480. The decrease in receipts occurred in Rangoon, Maymyo and Bhamo, while Rangoon, Mandalay, Thayetmyo, Maymyo and Meiktila contributed to the increase in expenditure. In Rangoon the income as compared with that of the previous year fell by Rs. 12,209, the figures being Rs. 72,572 and Rs. 84,781 respectively. The decrease was under all heads. On the expenditure side there was an increase of Rs. 25,433, the figures for the year of report and for the previous year being Rs. 1,00,149 and Rs. 74,716 respectively. The increase was under all heads except "6—Medical." The chief increase was under "10—Public Works," the outlay being about Rs. 20,320 more than in the previous year. In Mandalay there was a net increase of Rs. 3,258 in receipts during the year as compared with those of the previous year, the figures being Rs. 61,696 and Rs. 58,438 respectively. The increase was under all heads except "V—Miscellaneous," the income under this head being less than that of the previous year by Rs. 2,324. There was also a grant of Rs. 9,100 from the Military Department as against Rs. 5,000 in the previous year. The increase in expenditure during the year was small, the figures being Rs. 62,842 as against Rs. 62,509 in the previous year. In Meiktila the receipts and expenditure were Rs. 11,705 and Rs. 12,710 as against Rs. 6,560 and Rs. 6,300 respectively in the previous year. The increase in receipts was under 'Conservancy taxes and fees,' the figures for the year of report and for the

previous year being Rs. 5,489 and Rs. 476 respectively. The excess expenditure occurred under "1—Refunds" and "7—Minor Departments" (conservancy establishment and contingencies). In Shwebo the receipts and expenditure during the year were Rs. 6,920 and Rs. 5,673 as compared with Rs. 5,945 and Rs. 6,077 in the previous year. The increase under receipts was chiefly due to increased grant-in-aid. In Thayetmyo the total receipts were more than those of the previous year by Rs. 1,905, the figures being Rs. 8,464 and Rs. 6,559. The expenditure was Rs. 7,825 as against Rs. 7,679 in the previous year. In Maymyo the income during the year was Rs. 18,023 or Rs. 5,290 less than that of the previous year, owing chiefly to a reduced grant-in-aid. There was an increase in expenditure by Rs. 5,723, the figures being Rs. 22,813 as against Rs. 17,090 of the previous year. In Bhamo the receipts and expenditure for the year of report were Rs. 7,223 and Rs. 7,036, as against Rs. 9,347 and Rs. 9,197 respectively in the previous year. The closing balances of the Rangoon, Mandalay, Meiktila and Maymyo Cantonment Funds were less than those of the previous year. The expenditure of the year exceeded the receipts by Rs. 27,577, Rs. 1,146, Rs. 1,005 and Rs. 4,790 respectively.

Owing to the creation of a Town Fund at Myitngè, the number of Town Funds at the end of the year was 20 as against 19 in the previous year. The total income and expenditure of these funds were Rs. 9,99,753 and Rs. 9,87,048 as compared with Rs. 8,39,226 and Rs. 9,20,828 respectively of the previous year. There was thus an increase of Rs. 1,60,527 in receipts and Rs. 66,220 in expenditure. The increase in receipts was for the most part due to contributions from Government. In four towns there was a decrease in expenditure aggregating Rs. 73,514, and five others contributed to an increase of Rs. 1,44,697 in expenditure, Maymyo alone being responsible for an increase of Rs. 55,627. The expenditure of the year exceeded the receipts in the case of ten towns. The aggregate closing balances, inclusive of the Myitngè Town Fund, amounted to Rs. 3,62,079, as compared with Rs. 3,49,343 in the previous year. In ten towns the closing balances were less than in the previous year. There were large closing balances in the case of four towns accumulated in order to make provision for special works, such as water-supply, drainage and roads. All the funds appear solvent. In Danubyu the closing balance was only Rs. 17, which is less than the prescribed minimum.

Excluding the Rangoon Port Trust there were six Port Funds. The total receipts and expenditure were Rs. 4,24,683 and Rs. 4,31,783, as compared with Rs. 4,03,130 and Rs. 4,23,672 respectively in the previous year. The increase in receipts occurred in Moulmein, Akyab and Tavoy. The last named fund was, however, not in a position to pay during the past year the full Public Works Department expenditure incurred on Port Fund works, and Government had to help it with a contribution. In Bassein, Mergui and Kyaukpyu the receipts were less than in the previous year. In Akyab and Kyaukpyu the expenditure of the year was in excess of the receipts, and the closing balances were consequently less than in the previous year. The closing balance of the Moulmein Port Fund was more than in the previous year by Rs. 12,639. The state of the finances of the fund was, however, not satisfactory, and the sanction of the Government of India has since been obtained to the extension of the period of repayment of the loan of Rs. 2 lakhs granted in 1908 from 10 to 15 years. The annual instalments and interest which fell due on 1st April 1915, 1st April 1916 and 1st April 1917 aggregating Rs. 26,909-2-7 were paid by the Port Fund in June 1917. The Tavoy Port Fund was not in a position to pay the annual instalment on the loan of Rs. 65,000 in addition to carrying out urgently needed improvements to the Port, and the sanction of the Government of India was obtained to the extension from 10 to 15 years of the term of the loan, and to the postponement till the 24th February 1919 of the payment of annual instalments of principal. Interest due on the loan up to the 24th February 1917 has been paid. The Moulmein and Tavoy Port Funds are indebted to Government to the extent of Rs. 70,813 and Rs. 68,335 respectively.

There are four Pilot Funds in Burma. The receipts are derived chiefly from pilotage fees, and the expenditure consisted mainly of cost of maintenance of pilot vessels and payment to pilots. The ordinary receipts of the Rangoon Pilot Fund

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during the year amounted to Rs. 2,91,680, while those of the previous year were Rs. 3,07,376. The ordinary expenditure amounted to Rs. 3,14,540, as against Rs. 3,36,751 of the previous year. The fund closed with a balance of Rs. 22,638, as compared with Rs. 17,865 in the previous year. The aggregate receipts of the Akyab, Moulmein, and Bassein Pilot Funds during the year were less than those of the previous year by Rs. 2,124, the figures being Rs. 1,10,791 and Rs. 1,12,915, respectively. The closing balances of the Akyab, Moulmein and Bassein Pilot Funds for the year were Rs. 5,279, Rs. 3,261 and Rs. 2,741, respectively, as against Rs. 8,976, Rs. 3,987 and Rs. 4,163 in the previous year.

The receipts and expenditure of the Rangoon Police Reward Fund during the year of report were Rs. 398 and Rs 401 respectively, as against Rs. 451 and Rs. 505 in the previous year.

The receipts and expenditure of the Steam-boiler Inspection Fund during the year of report were Rs. 85,424 and Rs. 81,361, respectively as compared with Rs. 93,081 and Rs. 71,226 of the previous year.

The income of the Educational Syndicate Fund was Rs. 53,085 and the expenditure was Rs. 55,274.

Road and Education Cesses.

159. In Lower Burma contributions to education and local public works are made by the District Cess Funds which have been discussed in paragraph **156**. No special cesses for these purposes are levied in the Province.

Municipal Revenues.

Rangoon Municipality.

160. The gross receipts of the year including the opening balance (Rs. 1·06 lakhs) amounted to Rs. 51·68 lakhs, as compared with Rs. 58·22 lakhs in the previous year with an opening balance of Rs. 9·64 lakhs. Excluding the opening balance the total receipts for the year exceeded the total receipts for 1915-16 by more than two lakhs of rupees. Excluding the opening balance and receipts falling under the budget heads "Extraordinary" and "Debt," the ordinary income of the year was Rs. 45·48 lakhs, as against Rs. 44·19 lakhs in the previous year. Owing to large advances made from revenue for expenditure on works for which loans are to be raised, the Municipal Fund account at the end of the year was overdrawn to the extent of Rs. 1·63 lakhs against the overdraft of Rs. 5 lakhs from the Bank of Bengal sanctioned by the Local Government. The gross expenditure for the year was Rs. 53·31 lakhs as against Rs. 57·17 lakhs in the previous year. Eliminating charges on works paid from loans and the figures under suspense account, a total of Rs. 43·95 lakhs is obtained as the ordinary expenditure compared with Rs. 45·27 lakhs in the previous year. The expenditure from loan money amounted to Rs. 65,934, against Rs. 1·18 lakhs in the previous year. In addition to the expenditure of Rs. 65,934, a sum of Rs. 3·24 lakhs was advanced from revenue for works for which loans are to be raised. Including the advances made in the previous year, the total sum advanced from revenue amounted on the 31st March 1917 to Rs. 17·56 lakhs and will be adjusted when loans are raised for the works. Besides this sum a further sum of Rs. 3·86 lakhs has been temporarily appropriated for expenditure on new works from unexpended loan money which had previously been raised for carrying out certain works which have been postponed. The income derived from rates and taxes increased by some Rs. 56,000 to Rs. 33·99 lakhs. Of the increase some Rs. 38,000 consist of arrears paid by the Burma Railways Company, and the rest is due to the normal expansion of the town. The amount realized under special acts increased by Rs. 11,316 to Rs. 45,434. A rise of some Rs. 11,000 in the receipts from hackney carriage license-fees accounts for most of the increase. The revenue derived from municipal property and powers apart from taxation, rose from Rs. 9·51 lakhs to Rs. 9·89 lakhs, the increase being distributed over nearly all the miscellaneous sources of revenue. Among the principal items of expenditure,

charges for general administration and collection rose by Rs. 18,284 to Rs. 2·70 lakhs. Expenditure on public safety fell by some Rs. 47,000 to Rs. 2·9 lakhs, there being a fall in expenditure connected with the Fire Brigade of Rs. 52,849 to Rs. 74,438, and a rise in expenditure on street lighting of Rs. 6,192 to Rs. 2·15 lakhs. Expenditure on public health and convenience fell from Rs. 27·08 lakhs to Rs. 25·1 lakhs, mainly on account of a decrease in expenditure on roads from Rs. 6·77 lakhs to Rs. 4·79 lakhs.

Excluding loans raised for the Town Lands Reclamation Fund, which are noticed below, the loans outstanding on 1st April 1916 amounted to Rs. 1,32·30 lakhs. The yearly instalment of Rs. 57,500 towards the repayment of the 1887 loan of Rs. 23 lakhs was duly paid and at the end of the year the Municipality was indebted to the extent of Rs. 1,31·73 lakhs exclusive of the loans for reclamation works. The loan charges for the year amounted to Rs. 10·32 lakhs being Rs. 57,500 for repayment, Rs. 5·84 lakhs for interest, Rs. 3·82 lakhs for the Sinking Fund, and Rs. 8,911 for management charges. On the 31st March 1917 the face value of the securities in the Sinking Fund (excluding the Sinking Fund for Reclamation loans), was Rs. 34·18 lakhs. Owing to the large advances made from revenue since the year 1913-14 on works for which loans have yet to be raised the cash balance of the Municipal Fund was overdrawn to the extent of Rs. 1·63 lakhs.

The loans raised for reclamation purposes outstanding at the close of the year amounted to Rs. 60·5 lakhs against securities in the Sinking Fund of the face value of Rs. 12·15 lakhs. The Fund opened with a credit balance of Rs. 2·31 lakhs on the 1st April 1916, of which Rs. 91,619, being the unexpended balance of the amount advanced for works in the previous year, was in the hands of the Deputy Accountant-General, Public Works Accounts, Burma. The receipts for the year were Rs. 6·70 lakhs and the expenditure was Rs. 8·10 lakhs. The receipts included a sum of one lakh of rupees received from the Municipality in part payment for work done and Rs. 3,349 adjusted on account of stores purchased in previous years. The fund closed with a balance of Rs. 90,199 which includes an unexpended balance of Rs. 59,994 in the hands of the Deputy Accountant-General from advances made for works during the year.

Other Municipalities.

161. Exclusive of debt accounts amounting to Rs. 2·02 lakhs, and of opening balances amounting to Rs. 16·48 lakhs, the total income of municipalities in the Province (omitting Rangoon) was Rs. 49·69 lakhs as compared with Rs. 46·11 lakhs in the previous year. This is the highest figure on record for the last 15 years. It is a matter for satisfaction that the income of municipalities has been affected remarkably little by the war. Ordinary expenditure showed a decline from Rs. 48·34 lakhs to Rs. 47·4 lakhs, due to a reduction in the activities of the various services, necessitated by the difficulty of procuring materials. The closing balances stood at Rs. 16·74 lakhs, a sum roughly Rs. 70,000 greater than the previous year's figure. The outstanding balances amounted to Rs. 28,155 as compared with Rs. 37,502 in the previous year. Over one-third of the amount outstanding (Rs. 10,510) at Toungoo, represented arrears due chiefly to the delay in payment of taxes on Government buildings. The other large outstandings were Rs. 5,853 at Mandalay, Rs. 3,516 at Akyab, Rs. 1,639 at Myanaung, Rs. 1,580 at Kyangin and Rs. 1,286 at Pyinmana. Municipal rates and taxes produced a total of Rs. 18·26 lakhs, which exceeds by Rs. 38,445 the figure recorded in the previous year, and by Rs. 1·29 lakhs the average collections in the five preceding years. Realizations under special acts amounted to practically the same as in the preceding year. The only variation of note was at Tavoy where an increase in the number of motor cars enriched the Municipal Fund to the extent of nearly Rs. 4,000 in license fees. The total revenue from other sources rose from Rs. 18·96 lakhs in the previous year to Rs. 20·02 lakhs, the most noticeable increase being Rs. 47,574 at Mandalay, where a large sum was received as *salaami* from the bazaar lessee. At Bassein a comparatively large increase of Rs. 11,439 was for the greater part only apparent, as a sum of Rs. 9,228 was due to advance collection of bazaar stall rents of the ensuing year. There were also important increases of nearly Rs. 12,000 at Tavoy and over Rs. 10,000 at

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Moulmein. Nearly two-thirds of the former sum was due to an increase in the number of firms making monthly contributions to cover hospital charges for the treatment of their employees, while a considerable part of the latter is attributed to the breaking up of a butcher's combine and a consequent increase in slaughter-house fees. Three-fourths of the municipalities have contributed to the increase under this head. The aggregate total of grants and contributions rose from Rs. 8·14 lakhs to Rs. 9·89 lakhs, of which Rs. 8·41 lakhs was from Government and Rs. 1·13 lakhs from local funds, while the greater part of the balance represented contributions received from the public by the Syriam, Moulmein and Tavoy Municipalities for medical purposes.

On the expenditure side, general administration and collection charges amounted to Rs. 4·92 lakhs, against Rs. 5·32 lakhs in the previous year. Expenditure under this head, however, includes "Refunds other than octroi" which totalled Rs. 1·32 lakhs. Of this latter amount Rs. 1·13 lakhs were refunds of Government contributions which could not be utilized. Variations in the expenditure under the heads, public safety, water-works, sanitation, conservancy, hospitals and dispensaries, markets, public works, and public instruction have been noticed in Chapter III of this Report. The liabilities on account of interest rose from Rs. 1·14 lakhs to Rs. 1·29 lakhs owing to an increase in the amount of interest paid by the Mandalay Municipality. No new loans were raised by any of the Committees.

Other Funds.

162. There are four educational endowment funds, namely the Jardine, the Maung Ohn Ghine, the Renoung and the Coplestone Funds. These funds do not bank with Government and their accounts do not therefore appear in the Government books. The accounts of the Official Assignee are similarly excluded.

Paper Currency.

163. The average total or gross circulation of currency notes in 1916-17 was Rs. 6,02·3 lakhs, as against Rs. 5,36·94 lakhs in 1915-16, Rs. 4,94 lakhs in 1914-15 and Rs. 5,27 lakhs in 1913-14. At the end of April 1916 the gross circulation was Rs. 5,81·63 lakhs. It fell to a minimum of Rs. 5,06·63 lakhs on the 15th August 1916 and rose to a maximum of Rs. 8,48·9 lakhs on the 24th February 1917. There is no reserve treasury in Burma and to determine the active or net circulation, the value of notes of the Rs. 10,000 denomination have been excluded from the gross circulation. For the year 1916-17 the average of the net or active circulation on the last day of each month was Rs. 5,46·58 lakhs, the similar average for 1915-16 being Rs. 4,82·24 lakhs and for 1914-15 Rs. 4,12 lakhs. The average net circulation of currency notes thus increased during the year of report by Rs. 64·34 lakhs. The average net circulation has increased steadily each year since 1907-08 with the exception of 1914-15 when there was a set-back, due to the disturbance of trade caused by the war, but in each of the last two years there has been a marked expansion. Notes of the 10-rupee denomination amounted to 59·53 per cent. of the total net circulation at the end of March 1917, and notes of the 100-rupee denomination amounted to Rs. 35·04 per cent.

CHAPTER VI.

VITAL STATISTICS AND MEDICAL SERVICES.

REFERENCES—

Report on the Sanitary Administration of Burma for the year 1916.
Triennial Report on Hospitals and Dispensaries in Burma for the years 1914 to 1916.
Report on the working of the Burma Government Medical School, Rangoon, for the year 1916-17.
Report on the working of the Pasteur Institute and Bacteriological Laboratory for the period of eight months from the 1st August 1916 to the 31st March 1917.
Note on the Lunatic Asylums in Burma for the year 1916.
Triennial Report on Vaccination in Burma for the years 1914-15 to 1916-17.
Statistical Abstract for British India, Volume III.

Births and Deaths.

Area under registration and total population.

164. The system of registration of vital statistics remained the same as in previous years. The total area under registration, and the population upon which vital statistics ratios have been calculated, remained the same as in the previous year. The Sale Township of Myingyan District, comprising an area of 367 square miles and containing a population of 42,617, was in July 1916 transferred to Magwe District. The town of Myitngè, comprising a population of 3,688 in an area of 3 square miles, was from January 1916 constituted a notified area under a Town Committee in the Mandalay District. As a result there has been for the purposes of this report a diminution of the total rural population to 8,753,451 and a corresponding increase of the total urban population to 1,102,402.

Number of births and deaths.

165. The number of registered births exceeded registered deaths in Lower Burma by 62,169, and in Upper Burma by 33,824, showing a total increase of 9·7 per mille of the whole population of the Province. The total of registered births in 1916 was 332,227, of which 171,133 were males and 161,094 females, the proportion of the males born to every 100 females being 106. The Provincial birth-rate was 33·71 against 35·13 in 1915. The birth-rates for Lower and Upper Burma respectively were 32·75 and 35·30. The corresponding rates for 1915 were 33·39 and 38·01 and the previous five years' means 32·38 and 35·56. The rural birth-rate for the Province was 34·58, for Lower Burma 33·96 and Upper Burma 35·56. The urban birth-rates for the same areas were 26·81, 24·41, and 32·57. In Lower Burma, Bassein, Kyaukpyu and Toungoo Districts recorded very low birth-rates; in Upper Burma the lowest birth-rate was recorded in the Meiktila District. The total of registered deaths for the Province in 1916 was 236,234 against 275,849 in 1915. Of these 196,508 occurred in rural areas, and 39,726 in towns. The Provincial death-rate was 23·97 against 27·99 in 1915 and 24·13 in 1914. The rural death-rate was 22·45 and urban death-rate 36·04. Both were less than the mean of the previous five years. It is satisfactory to note that, with the exception of Madras, Burma records the lowest Provincial death-rate in India for 1916. The death-rates for Lower and Upper Burma respectively were 22·61 and 26·21, for rural areas 20·84 and 24·99, and for urban areas 34·82 and 38·95. All the Districts in Lower Burma except Tavoy, Pyapôn and Mergui, record lower rural death-rates than the mean of the previous five years; while in Upper Burma 9 out of 12 Districts, *viz.*, Mandalay, Sagaing, Lower Chindwin, Thayetmyo, Pakôkku, Minbu, Meiktila, Kyaukse and Myingyan, similarly record death-rates below the five years' mean. The Provincial rate of infant mortality per mille of births in 1916 was 206·34 as against 219·35 in 1915 and 216·36 in 1914. The Upper Burma rate was 35 per mille higher than that of Lower Burma. In the rural areas of Lower Burma a decrease in recorded infantile mortality was noticeable in all the four Divisions. Of individual Districts, Prome, Bassein, Pyapôn, Tavoy and Mergui, alone showed an

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increase over the figures for the previous year. In Upper Burma only three Districts of the Magwe Division, *viz.*, Thayetmyo, Minbu and Magwe, recorded rural infantile death-rates in excess of those for the previous year, and in rural areas of all other Districts there was an appreciable fall in infant mortality. Substantial annual contributions are being made by the Local Government to the Societies for the Prevention of Infantile Mortality, at Rangoon, Mandalay, and Moulmein, and the work of these Societies is being better organized than in previous years. Similar Societies were started during the year at Pyapôn, Kyaiklat, and Bogale. At Sagaing, the maternity ward, which is under the direction of a local committee of ladies, has attained much popularity, and women from villages outside the town have applied for and obtained admittance thereto for the period of their confinement. During the year 114 women were safely confined in the ward. Some 26·54 per cent. of births registered in the town took place in the maternity ward.

Causes of death.

166. The registered mortality for different causes in 1916 is compared below with the figures for 1915 :—

	1916.	1915.
Cholera	1,673	17,597
Small-pox	707	217
Plague	7,702	4,640
Fevers	77,691	84,240
Dysentery and diarrhœa	7,940	11,586
Respiratory diseases	8,400	8,529
Suicide	204	199
Wounding or accident	1,807	1,778
Snakebite or killed by wild beasts	2,027	2,052
Rabies	27	27
All other causes	128,056	144,984
Total ...	236,234	275,849

There was a decrease in 1916 of 39,615 deaths from the figures recorded for 1915, due mainly to a diminished mortality from cholera, dysentery and diarrhœa, fevers and "all other causes." The epidemic of cholera, which assumed serious proportions in the later months of 1915, continued with diminishing intensity in Lower Burma generally until May of 1916, and during June in the Irrawaddy Division. In Upper Burma it died away in January everywhere except in Meiktila District, which returned 15 deaths in February. In rural areas 1,081 deaths were recorded for Lower Burma and 189 for Upper Burma. Only 403 deaths were returned by urban areas of the Province, of which 386 occurred in Lower Burma and 17 in Upper Burma. There were 232 deaths from small-pox in rural areas, of which 206 occurred in Lower Burma and 26 in Upper Burma. The towns of Lower Burma returned 443 deaths from this disease, of which 343 occurred in Rangoon. In Upper Burma, Mandalay with 23 deaths, and Sagaing with 8 deaths, were the only towns infected. In Lower Burma epidemic plague had obtained a firm hold in Rangoon Town and Tharrawaddy, Bassein, Henzada and Toungoo Districts, by the opening of the year 1916, and indications of serious outbreaks appeared in three other Districts during January and February, *viz.*, Pegu, Amherst, and Prome. Prome District was subject to epidemic plague throughout the year. In Amherst District the plague outbreak became serious in March, with 80 deaths. Thereafter the mortality fluctuated, again reaching 80 in July, after which it decreased. The epidemic in Pegu District continued till August, when it declined. As in previous years the whole of the Arakan Division, and Tavoy and Mergui Districts of Tenasserim Division, were free of plague infection. The great majority of deaths in both Lower and Upper Burma occurred in the towns, *viz.*, 6,649, against 3,711 in 1915, the rural mortality being 1,053 against 929 in the previous year. In Lower Burma 24,889 and in Upper Burma 38,569 persons were inoculated against plague in 1916. No less than 7,089 inoculations were carried out in Mônywa Town, with a census population of under 9,000 persons. In Yenangyaung with a slightly larger population 3,056 persons were inoculated. In Myaungmya (6,561 population) 2,228, and in Yamèthin Town (8,083 population) 2,407 inoculations were performed. The number of rats destroyed in 1916, as reported, was 436,218, of which 385,161 were killed in Rangoon. In Upper

Burma out of 16,332 rats destroyed, 12,677 are returned from the Northern Shan States. Mortality-rates under fevers for Lower and Upper Burma were 7·64 and 8·28 against 8·24 and 9·05 in 1915. Except for Hanthawaddy, Pyapôn, Tavoy, and Mergui Districts in Lower Burma, and Thayetmyo and Minbu Districts in Upper Burma, the fever death-rate was less everywhere in 1916 than in 1915. In Mandalay and Kyaukse Districts particularly there was a fall from 12·27 and 12·12 respectively, in 1915, to 9·75 and 9·93 in 1916.

Quinine.

167. The outturn by the Rangoon Central Jail Quinine Department of five-grain tablets was 5,208,890, and of one-grain tablets 5,085,800. The year opened with a balance in hand of 19,540 five-grain, and 368,700 one-grain tablets. During the year 5,015,320 five-grain and 5,312,500 one-grain tablets were issued to authorized recipients. About 4,350 lbs. of raw quinine sulphate was utilized in the manufacture. The cost of manufacture of the tablets (exclusive of labour and supervision) amounted to Rs. 34,870-6-0, and the packing charges to Rs. 870. Some 98,046 packets containing 400 grains each were disposed of by Treasury Officers and Deputy Commissioners, being 25,679 packets in excess of the retail issue in 1915. Of this total 1,409 packets were issued gratis to inhabitants of malarious tracts. The average quantity per head of population of the Province disposed of through the approved agencies was 3·32 grains.

Emigration and Immigration.

168. The total of immigrants into Burma through the ports of Akyab, Kyaukpyu, Moulmein, Rangoon, Tavoy and Mergui, was 258,841, a decrease of 80,049; and the total of emigrants from these ports 252,348, an increase of 3,272 on the previous year. The excess population of immigration over emigration was 6,493, or 83,321 less than in 1915. Rangoon returned 229,159 immigrants, and 200,898 emigrants, against 291,968 immigrants and 198,715 emigrants in 1915. Of the emigrants 167,174 were bound for Indian ports.

Medical Relief.

Hospitals and dispensaries.

169. Four new institutions were opened and one closed during the year, and thus at the end of the year there were 282 hospitals and dispensaries.

Attendance and treatment.

170. The number of patients treated at various institutions totalled 1,858,485 against 1,791,792 in 1915. The daily average attendance among indoor and outdoor patients rose from 3,113 and 9,025 in 1915 to 3,316 and 9,411 respectively in the year of report.

The chief diseases treated in order of prevalence were :—

All diseases of the digestive system other than dyspepsia, diarrhœa, hepatic diseases, dysentery, cholera, enteric, appendicitis and kala azar.
Malaria.
Ulcers.
Diseases of the skin other than ulcers.
All diseases of the respiratory system except pneumonia and tubercle of the lungs.
Injuries.
Diseases of the eye.
Dyspepsia.
Diseases of the ear.

There were 863 cases of small-pox, 642 cases of plague, and 138 cases of cholera against 338, 248 and 787 respectively in 1915. There were 4,292 deaths among in-patients treated during the year, the death-rate being 6·29 per cent. against 6·43 in 1915. The attendance of Burmese and other indigenous races shows a steady increase from year to year. Women and children availed themselves of hospital treatment more frequently than last year. The 'Discrimination Scheme' in force at the hospitals at Rangoon, Maymyo and Mandalay has been a success. At the Burma Pasteur Institute, Rangoon, 322 persons were treated for dog-bite.

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General.

171. Expenditure for medical relief amounted to Rs. 18,72,930, against Rs. 20,73,852 in 1915, showing a decrease of Rs. 2,00,922. The cadre of Indian Medical Service Officers was increased by three, but the addition of two officers will have effect after the end of the war. Owing to the withdrawal of most of the Military officers, the majority of the civil surgeoncies have been filled by Civil Assistant Surgeons. No additions were made to the cadre of Sub-Assistant Surgeons during 1916, but the shortage rose to 21 at the end of the year from 14 at the beginning of the year. Under the Results-System Midwife Scheme, 15 midwives qualified and ten others are under training. Under a recent re-arrangement, five candidates are entertained every six months and sent to the Dufferin Hospital, Rangoon, for training in Midwifery alone for one year. The Nurses' scheme brought into force last year in the General Hospital, Rangoon, is to be tried at Mandalay and also at Moulmein. There are now 10 women under training at the General Hospital, Rangoon, and 3 at the Civil Hospital, Mandalay. The Burma Medical Act came into operation on the 4th December 1915 and was in force in the year of report. The number of pupils at the Burma Government Medical School, Rangoon, was 100 against 75 in 1915. Of the 40 new admissions, the number who have passed the Matriculation or the High School Final or the Senior Cambridge Examination total 31 or 77·5 per cent. against 37·5 in the previous year. The qualifications of the candidates seeking admissions in the school are improving yearly. Sixteen passed the final qualifying examination against five in 1915. It is proposed to re-organize the school to train 50 students yearly as the Governments of Madras and Punjab have expressed their inability to supply Sub-Assistant Surgeons from their Provinces.

Lunatic Asylums.

172. The number of inmates of the Rangoon and Minbu Lunatic Asylums at the end of the year increased to 706 from 641 in 1915. The daily average strength was 702·54, against 623·18 in 1915. In the Rangoon Lunatic Asylum, overcrowding was the order of the day, and want of space added to want of buildings made matters difficult. The mortality at the two asylums fell from 8·50 per cent. in 1915 to 6·26 per cent. The total expenditure of both the asylums amounted to Rs. 1,47,938 against Rs. 1,69,194 in 1915. In Rangoon, the average cost of dieting a lunatic was only Rs. 69 against Rs. 86 in 1915, and in Minbu, the average cost per head fell from Rs. 124 in 1915 to Rs. 109. The Manufacturing Department worked at a net profit of Rs. 16,324 against Rs. 16,517 in 1915.

Sanitation.

Principal works and expenditure.

173. There was only one meeting of a Divisional Sanitary Board held at Mawlaik in the Upper Chindwin District on the 26th June 1916. This was in connection with the arrangements to be made for the removal of the District headquarters from Kindat to Mawlaik. The Committee inspected the Civil Station and town sites, and found the progress made very satisfactory. They decided upon the adoption of an infiltration well scheme for the water-supply of the town. Many circumstances have combined to retard progress in the provision of a protected water-supply at stations for which schemes had been prepared and sanctioned. Physical conditions have provided the most serious of these obstacles to the sinking of tube wells, the strata bored through, to a great depth in some cases, either failing to yield any potable water, or affording too small a quantity. In the Meiktila District a great thickness of sandstone has been found to underlie the surface cap of calcareous soil, and no water has yet been reached by this method of search. The difficulty in Myingyan Town took the form of saline deposits, which, up till the year of report, frustrated every attempt to obtain a potable supply. At last a copious supply of excellent water has been found, on the margin of an old river-channel and the problem of finding a satisfactory source of water-supply for the town appears to have been solved. Elsewhere difficulties were presented by a big rise in the price of pipes and machinery, which had to be ordered from Europe. And, more recently, the difficulties imposed by the war in obtaining

freightage has put a stop to all such supplies. Attention is now being directed rather to obtaining supplies from upland collecting areas, than from underground sources which have been searched for in vain in so many places. Municipal Committees spent 43·37 per cent. of their income on sanitary works, *viz.*, 12·69 on water-supply, 5·76 on drainage, 12·94 on conservancy and 11·98 on other details, but District Cess and District Funds spent only 8·03 per cent. of their total income on sanitary projects.

Vaccination.

Establishment.

174. The strength of the vaccination establishment at the end of the year 1916-17 was 38 Native Superintendents of Vaccination and 299 vaccinators, as compared with 41 Native Superintendents and 297 vaccinators in the preceding year. The reduction in the cadre of Native Superintendents of Vaccination was due to the style of 3 of the appointments in the Southern Shan States being changed to that of "Head Vaccinator." The number of Sub-Assistant Surgeons who received an allowance for the supervisi n of vaccination in certain towns and municipalities in the year of report showed an increase by two over that of the previous year when the number was 22 Nine District vaccinators were removed or dismissed from the service for falsification of returns and diaries, and two Native Superintendents of Vaccination were required to resign their appointments on departmental grounds.

Number of operations.

175. The total number of persons vaccinated by the special staff, *i.e.*, Town and District Vaccinators, amounted to 545,819 as compared with 459,047 in 1915-16 an increase of 86,772. In addition to this, 4,077 persons were vaccinated at various hospitals and dispensaries, 2,652 by private agencies, and 24,388 in jails, making a total of 576,936 persons vaccinated. The total number of operations performed by Town and District Vaccinators amounted to 418,043 primary and 128,454 re-vaccinations, against 385,399 primary and 74,446 re-vaccinations in 1915-16, or an increase of 32,644 and 54,008 respectively under each head. Successful primary operations totalled 390,617, and successful re-vaccinations 50,071 showing an increase of 28,125 and 15,605 respectively on the previous year's return. The Districts in the Arakan Division, except Kyaukpyu, together showed a total increase of 4,035 in primary successes. In Kyaukpyu District a small deficit of 285 cases was recorded in primary successful operations. In Pegu Division an increase of 5,205 primary successes was recorded which was attributable to Insein District (2,169), Hanthawaddy (1,599), Tharrawaddy (1,100) and Prome (1,471). Rangoon Town District returned a deficit of 325 primary successes and Pegu 809. The Irrawaddy Division returned an increase of 5,851 shared by Ma-ubin (526), Pyapôn (1,316), Bassein (991) and Myaungmya (3,705 or 58·8 per cent.) on the work of the previous year. Henzada District alone returned a deficit of 687 primary successes in this Division. In the Tenasserim Division only 3 out of 6 Districts showed an increase of 3,995 primary successes, Amherst District claiming 1,691, Mergui 243, and Toungoo 2,061. Tavoy, Thatôn and Salween Districts together showed a deficit of 1,245; the net increase for the Division on the previous year's figures amounted to 2,750 primary successes. All the Districts in the Mandalay Division in the aggregate returned an increase of 1,227 successful primary operations. The newly-created District of Putao submitted returns of vaccination for the first time, and 242 primary operations were reported with 225 successes. The Shwebo, Sagaing and Upper Chindwin Districts in the Sagaing Division, together showed an increase of 1,086. The Lower Chindwin District showed a small deficit of 109 successful primary operations. Of the 4 Districts in the Magwe Division, Thayetmyo and Minbu together showed an increase of 1,435 while the remaining two Districts, Pakôkku and Magwe, returned a deficit of 664 primary successes. Two Districts in the Meiktila Division, Meiktila and Yamèthin, contributed an increase of 2,602 primary successes. Myingyan returned a deficit of 1,123. The work in Kyaukse District was almost level with that of the previous year only a small deficit of 72

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primary successes being recorded. The Northern and Southern Shan States returned an increase of 1,514 and 4,473 operations respectively and the Chin Hills one of 200. On the whole the year's work in primary successful cases showed a net increase of 28,125 on the returns of the previous year, and 25,146 on those of 1914-15. With the exception of the Arakan and Meiktila Divisions, and the specially administered areas, all the other Divisions in the Province together showed an increase in re-vaccination work of over 17,000 successful cases on the returns of the previous year. As usual Rangoon Town District claimed the largest number of successful re-vaccinations, the year's record being 15,227 or 655 less than in the previous year. Next came Prome District with 8,590 successful re-vaccinations. These cases were performed chiefly in Prome Municipality, where a vaccination campaign was carried out among persons of all ages for a period of one month, with 10 additional vaccinators temporarily engaged for the purpose. Sagaing District returned 7,045 successful re-vaccinations as compared with 2,696 in the previous year. The percentage of successful operations in which the results were known, was uniformly good throughout nearly all the Districts in the Province, except in a few outlying areas such as Sandoway, Northern Arakan and the Chin Hills, where owing to delay in transmission, certain samples of lymph had deteriorated before use and did not produce satisfactory results. The percentage of successful results obtained in 1916-17 was 97·64 for primary operations and 59·32 for re-vaccinations, against 97·14 and 57·18, respectively, in the previous year. The protection afforded by vaccination per 1,000 of population was 36·28 as compared with 32·77 in 1915-16. In the 57 towns where vaccination is compulsory 37,861 primary operations with 34,468 successes were recorded, against 33,677 primary operations with 31,973 successes in 1915-16. Thirty-five towns returned an increase in the number of primary operations performed, and 21 towns a decrease, on the previous year's work. The increase per cent. was conspicuous in the case of Yenangyaung (213 per cent.), Taungdwingyi (136 per cent.), Wakèma (201 per cent.), Sagaing (133 per cent.), Paungdè (111 per cent.), and Mergui (75 per cent.). There were rather large decreases in the returns of the towns of Thatôn (47·43 per cent.), Sandoway (38·74 per cent.), Ngathaingyaung (34 per cent.), Pyinmana (28·85 per cent.), Yamèthin (25·86 per cent.) and Letpadan (25·13 per cent.). The return of 75,956 re-vaccinations performed in towns showed an increase of 76·98 per cent. on the outturn of the previous year. A large increase in re-vaccination was recorded by Rangoon, Prome, Paungdè, Pyapôn, Moulmein, Mergui, Toungoo, Mandalay, Sagaing, Minbu and Salin. In the 57 towns where vaccination is compulsory the returns of registration of births show the number of infants surviving birth as 21,583 whereas the vaccination returns show that 21,698 infants were successfully vaccinated. Eighteen towns returned a considerably higher number of successful infant vaccinations than there were survivors of registered births. The usual explanation of this anomaly is that these successful cases included infants brought into the town from rural areas for vaccination, or vaccinated by the town vaccinators outside the town limits. A slight decline in both primary and re-vaccination work in dispensaries was noticed. During the year 4,077 persons were vaccinated by the dispensary staff, of which number 2,899 were primary vaccinations and 1,178 re-vaccinations, with successful percentages of 94·66 and 66·35 respectively. The decrease in dispensary vaccination was wholly confined to re-vaccination work. In Jails 24,388 persons were vaccinated including 2,274 primary and 22,114 re-vaccination. Out of a total of 422,578 persons primarily vaccinated by all the agencies, Civil Surgeons and other inspecting officers verified the results of 52,818, or 12·50 per cent. as compared with 46,676 or 11·82 per cent. in the previous year. Native Superintendents of Vaccination verified 233,508, or 55·26 per cent. against 193,786 or 49·09 per cent. in 1915-16. In addition to this 8,030 or 6·18 per cent. of the re-vaccination cases were verified by the former class of officers and 49,649 or 38·20 per cent. by the latter class.

Expenditure

176. The total expenditure during the year amounted to Rs. 2,27,671, being Rs. 7,196 in excess of the expenditure for 1915-16. The increase under

establishment charges was Rs. 6,837 and under contingencies Rs. 925. There was a decrease of Rs. 566 in expenditure on travelling allowance. The whole of the excess expenditure was borne by Local, Municipal, and Native State Funds. There was a decrease of Rs. 4,066 in expenditure from Provincial Funds.

The average cost per successful operation for the Province was Re. 0-8-3 against Re. 0-9-1 in 1915-16. The Districts which returned the lowest average cost were Myingyan and Sagaing (Re. 0-3-10), and Tharrawaddy (Re. 0-4-6). An exceptionally high average cost was returned by the newly-created District of Putao (Rs. 2-7-4), the next highest being in Northern Arakan (Rs. 1-7-6), Ruby Mines (Rs. 1-5-6), and the Northern Shan States (Rs. 1-4-2).

177. The outturn of glycerinated lymph was 739,031 doses against 748,720 in 1915-16, and 776,432 in 1914-15. The total number of doses issued to vaccinators and others was 730,986, which is more than in either of the two preceding years. The percentage of successful results obtained in 1916-17, in 322,178 primary operations reported to the Director, was 97·32 and in 64,259 re-vaccinations a percentage success ratio of 53·06 was recorded. Among other experiments made, that of preserving vaccine lymph in the chamber attached to the small ice-making machine gave satisfactory results, lymph being used successfully on calves after 13 months' storage. During the year two Native Superintendents and 41 apprentice vaccinators attended for instruction at the Training School. All of them passed the final examination.

Vaccine Depôt, Meiktila.

CHAPTER VII.

INSTRUCTION.

REFERENCES—

Fifth Quinquennial Report on Public Instruction in Burma for the years 1912-13 to 1916-17.

Statistical Abstract for British India, Volumes IV and V.

General System of Public Instruction.

See paragraphs 253 to 280 of the *Report on the Administration of Burma* for the year 1911-12.

Education.

General progress and educational measures.

178. The important events during the year were the revision of the Normal School Courses for the training of teachers, the submission of the Bill and Statutes for the proposed Burma University, with a view to bringing in an interim scheme pending the provision of funds for buildings and a full staff, the appointment of Committees on Female Education and the Imperial Idea, and the formation of Divisional School Boards.

The first draft scheme for a Burma University was submitted to the Local Government in 1911-12 and two years later a site was chosen but afterwards discarded as unsuitable. In the year 1914-15 the Draft Bill and Draft Statutes were held under consideration by the Government of India and the Local Government. Certain modifications were found desirable, and in the following year the Bill and Statutes were completely redrafted. At the same time proposals for the early establishment of the University, on the lines laid down in a temporary scheme to be adopted until financial conditions rendered the execution of the larger scheme possible, were drawn up. Both measures came before the Government of India in 1916-17, but the hope that the temporary scheme at least would be finally sanctioned before the end of the year was disappointed.

To the controlling agencies were added the Divisional School Boards and the Rangoon School Board, constituted three months before the close of the year. The new boards are intended to facilitate the participation of both civil officers of Government and non-officials in the conduct of local educational affairs. To them are assigned certain duties and responsibilities which formerly belonged to the Education Department. They exercise very wide powers of financial control and undertake the administration and supervision of vernacular education within their several areas, subject to the general control of the Education Department and in accordance with the orders of Government and the provisions of the Burma Education Code.

The work of the Committee on Female Education is noticed below. A Committee was appointed during the year to ascertain and advise how the Imperial Idea may be inculcated and fostered in Schools and Colleges in Burma and issued a report embodying its recommendations.

Number of schools and scholars and expenditure.

179. The number of public schools increased by 489 and pupils in attendance at public schools by 16,394. The totals now stand at 9,564 schools and 393,399 pupils. The development of collegiate education has been maintained. The number of students reading in Arts Colleges has risen from 645 to 663 in the year of report. Secondary schools of all kinds have risen from 1,331 to 1,400, and pupils in attendance from 122,894 to 128,843. The great bulk of the pupils however—more than four-fifths—are reading in the primary departments of these schools. Upper Primary Schools have increased by 393 and pupils by 9,678. Lower Primary Schools have decreased in number by 15 and pupils

attending them by 279. The returns for private institutions, which are not to be accepted as more than a rough estimate, shew an increase of 215 schools and 12,975 pupils. CHAP. VII.—INSTRUCTION.

The total expenditure on education has increased from Rs. 65,14,130 to Rs. 66,79,145. The largest contribution to the increase comes from "Other sources" (subscription, endowments, etc.). The expenditure from District Cess Funds decreased by Rs. 23,452, it increased from fees by Rs. 68,163 and from other sources by Rs. 85,096. The expenditure from Municipal Funds decreased by Rs. 28,261. The average expenditure on education per head of population rose from 8 annas 6 pies in 1915-16 to 8 annas 10 pies in 1916-17. The average cost of educating each pupil in Arts Colleges rose from Rs. 304 to Rs. 311, in Training schools it fell from Rs. 287 to Rs. 284 and in other special schools from Rs. 19 to Rs. 18. The average cost per pupil in secondary schools rose from Rs. 22·9 to Rs. 23·2 and in Upper and Lower Primary schools it fell from Rs. 5·2 to Rs. 4·8 and from Rs. 2·9 to Rs. 2·6 respectively.

180. The term "Primary School" includes all European, Anglo-Vernacular, and Vernacular Schools teaching up to the Fourth Standard. It also includes for certain purposes the Primary Departments (Standards I and IV of Secondary Schools). There are 16 Primary Anglo-Vernacular Schools and 2 Primary European Schools for boys on the register. The remaining 6,770 Primary Schools are vernacular. Primary Schools for boys of all kinds have increased from 6,492 to 6,788 and pupils in attendance from 215,537 to 222,486. Vernacular Primary Schools for boys taken separately have increased from 6,477 to 6,770 and pupils in attendance from 214,833 to 221,516. The number of boys in the Primary Standards of all schools, including European and Anglo-Vernacular schools and schools for girls, has increased from 236,962 to 244,555, about 3·2 per cent. Over nine hundred schools classed as Primary girls' schools have an attendance of nearly 12,000 boys and over 61,000 girls are found in schools classed as boys' schools. The great bulk of the pupils in Vernacular schools are still in the Lower Primary stage and the rate of increase is still faster in that stage than in the Upper Primary. The Anglo-Vernacular Primary School *per se* is of little value. Unless it proceeds in the ordinary course to the Middle stage or serves as a feeder to a neighbouring Middle school it had better be closed. An Anglo-Vernacular Primary education may be better than no education at all, but if it stops there the pupil is less fitted to play his part as a good citizen than if he had received a Vernacular education. The *Mula-ganan-thincha* examination for monks, which was instituted in 1913-14, in order to induce Buddhist monks and novices to learn the elements of modern arithmetic and qualify themselves as teachers of aided monastic schools, is still popular, and many candidates for whom it was never intended, especially in Lower Burma, to which it was extended in 1914-15, have been attracted by it. Primary education.

The maintenance grant, which is intended gradually to displace the old system of payment by results in Vernacular schools, was introduced first in 1912-13 and has been gradually extended.

181. The term "Secondary Education" connotes European (and Anglo-Indian), Anglo-Vernacular, and Vernacular Education above the Primary stage. But in this paragraph it is customary to deal with only the second and third of these categories and that too in respect of boys' schools only. It should also be noticed that the statistics cover not only the Primary Departments attached to such schools but also include any girls who may be in attendance. The total of all classes of Secondary public schools has risen from 1,331 to 1,400, and of pupils from 122,894 to 128,843. In the Anglo-Vernacular class there is an increase of 4 schools with 191 pupils. There are now 132 Anglo-Vernacular Secondary schools for boys with 26,535 pupils. Of these 37 are High schools. The number of pupils in the High Department of Anglo-Vernacular Boys' schools rose from 2,022 to 2,044. In the Middle Department the number, 9,969, was the same as last year. Of the pupils attending Anglo-Vernacular High schools, the percentage of pupils in the High Department was 7·7, in the Middle Department 37·6, in the Secondary education.

CHAP. VII.—INSTRUCTION.

Upper Primary 34·4 and in the Lower Primary 20·4. The figures for Vernacular schools shew 1,117 schools with 85,948 pupils, an increase of 64 and 5,378 respectively. There are 25 High schools compared with 23 in 1915-16. Government Vernacular High schools for boys number 3, the same as last year, Middle schools 26, an increase of one. District Cess Middle Vernacular schools have increased from 15 to 16. These last are all in the Arakan and Tenasserim Divisions, where private effort is less effectual than elsewhere in supplying even the limited education that the average village boy expects. Government schools are also most numerous in the Arakan Division, which has 6 of these schools; the Mandalay Division has 5, and the Tenasserim and Magwe Divisions 4 each. The main purpose of Government Vernacular schools is to serve as models for the imitation of aided schools under private management, but they also serve as a source of supply of Vernacular teachers. Government Anglo-Vernacular High schools number 16 with an average attendance of 303, Middle Schools 17 with an average attendance of 143, a total of 33 schools the same as last year. Aided High Schools have increased from 19 to 21, with an average attendance of 388; Aided Middle Schools have increased from 72 to 74, with an average attendance of 142. No important changes were made in the curricula either of Vernacular or Anglo-Vernacular schools, except certain modifications affecting girls' schools. But the Committees on Female Education and on the Imperial Idea that sat during 1916-17 adopted resolutions that may effect very considerable changes in the courses, especially of Anglo-Vernacular schools in the near future. The growth in popularity of the Anglo-Vernacular High School Final Examination conducted by the department continues. The examination was first held in 1910, when 81 candidates entered from the schools and 32 passed. In 1916-17, 549 students including 43 private candidates entered, of whom 542 actually sat and 278 passed.

The results of the examinations are as follows:—

Examination.	1915-16.		1916-17.	
	Number presented.	Number passed.	Number presented.	Number passed.
Anglo-Vernacular High School Final ...	488	216	549	278
Matriculation	535	234	545	282
Vernacular Ninth Standard	53	9	70	43
Anglo-Vernacular Seventh Standard ...	2,412	1,199	2,546	1,200
Vernacular Seventh Standard	2,307	728	2,664	883

Collegiate education.

182. The numbers on the rolls at the two colleges rose from 645 in March 1916 to 663 in March 1917. Of these 556 including 9 women students belonged to the Government College, 107 to the Baptist College. Amongst the 19 private students who passed the examination in 1916-17, were 14 girls from the Government Normal School, Rangoon. A satisfactory feature is the steady growth of the Science classes, the students of which numbered 164. Many of the best students including all the Anglo-Indians who join the Government College, take the Science courses. There is a noticeable increase in the number of Hindus and Mahomedans. The sanctioned staff of the Government College includes nine members of the Indian Educational Service in addition to the Principal, but one appointment has not been filled. The proportion of Burmans on the staff has shown a very satisfactory increase. In 1916 a Lecturer in Persian was appointed to the post endowed by the Hon'ble Mr. A. K. A. S. Jamal, C.I.E., and the nucleus of a Persian library was formed by the purchase of books with a donation of Rs. 1,500 from Mr. Osman Musti Khan. The strengthening of the European element on the staff and the keen interest shewn by the Principal in athletics have promoted a high standard of excellence in games of all kinds, and an equally high standard of play. The number of students in the Law Classes rose in numbers from 12 in 1915-16 to 40 in 1916-17. The standard of education amongst law students has risen considerably in recent years, and in other respects also the students are of a better

type than formerly. The report of the Burma Medical School shews that progress is steady. The number of students rose from 75 to 100. The standard of work has improved. Sixteen students qualified as Sub-Assistant Surgeons in 1916-17, twice the average of the previous three years, and 10 of the 16, including one woman, were Burmans. In the near future Burma ought to be independent of India for the supply of Provincial Medical officers. Ten Burma students, of whom seven are Burmese by race, are studying at the Medical College, Calcutta. Three students passed the final examination for the M.B. degree, one of them after five years' study. The total results of five years' work are not all that might be desired. Fifty-four Indian students from Burma are under training at the Medical Schools of Royapuram, Vizagapatam, Calicut, and Madras. The final-year students from the Government Medical School also undergo a three months' course of Midwifery in Madras.

There is no College for Oriental studies in Burma, but the study of Pâli is encouraged by the *Patamabyan* examinations, which are held annually to test the proficiency of Burmese students of Pâli, and by grants of rice to monasteries recommended as centres of Pâli learning. All but a minute percentage of the candidates are monks. It is noticeable that, whereas the monks who passed at the last examination were just over a third of the candidates, 8 nuns passed out of 10 who sat.

The results of the Calcutta University Examinations so far as Burma candidates are concerned are shown in the following table :—

Examination.	1915-16.		1916-17.	
	Number presented.	Number passed.	Number presented.	Number passed.
B.A.	68	39	81	45
B.Sc.	11	6	12	8
I.A.	194	75	233	96
I.Sc.	39	23	63	34

Technical education.

183. Technical instruction is carried on in three Government institutions and 8 aided institutions. The number of Government schools is the same as in 1915-16, but the number of pupils has increased from 190 to 195. The pupils in the 8 aided schools number 583. The total is thus 11 technical schools with 778 pupils, an increase of 88 pupils. Provision is also made for the training of European and Anglo-Indian apprentices in Engineering and other workshops, namely the Burma Railways, Irrawaddy Flotilla Company, Rangoon Port Commissioners, the Rangoon Electric Tramways and Supply Company, Messrs. Bulloch Bros., and the Burma Chemical Industries.

The Technical subjects taught are Cookery, Dress-making, Needlework, Lace-making, Carpentry, Printing, Book-binding, Weaving, Canework, Smith's work, Shoe-making and, in the Commercial Schools, Shorthand, Typewriting, Commercial Correspondence and Book-keeping. If the recommendations of the Committee on Female Education that sat in 1916 are accepted, needlework will become a compulsory subject for girls in all schools.

Manual Training classes are connected with 9 Anglo-Vernacular, 26 Vernacular, and 9 Normal Schools, an increase of 5 Anglo-Vernacular and 16 Vernacular Schools. The appointment of a special Deputy Inspector for Manual Training Schools should do something to spread the teaching of Slöjd

School gardening continues to develop. At the annual flower show of the Agri-Horticultural Society of Burma, held in Rangoon in February 1917, school gardens were represented for the first time. The decision to award special prizes for schools was reached a little late in the year, but in spite of short notice and of the novelty of the scheme 19 schools sent in exhibits. The best exhibit came from the Roman Catholic Mission School, Thônzè.

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There are 18 Survey Schools which train students for the Land Records Department, attended by 140 students in receipt of stipends of Rs.10 per mensem. At the Educational Syndicate examination in 1916, the passes obtained were 99 in Surveying, 108 in Arithmetic and 174 in Revenue.

The Government School of Engineering has made rapid progress but it has reached the limits of development possible with the existing staff, buildings and equipment. The Public Works Department Reorganization Committee, which visited the school in March 1917, was struck with the poverty of the equipment and accommodation at this, the only Engineering School in the Province. A scheme for re-constitution of the school on a larger scale is under consideration. The number of students increased from 60 to 74, and a more gratifying feature than the mere increase of numbers is the greater proportion of Burmans under training. The percentage of Burmans in the school is now 85. In addition to the Civil Engineering and Mechanical Engineering classes, there is an Apprentice class in which seven pupils receive a training in technical work that should fit them for employment as instructors in technical or trade schools. Four art students are also being trained, two in wood-work, two in bronze. One of these won the second-grade competition for bronze-work at the Arts and Crafts Exhibition in December 1916.

Training schools.

184. The history of Training Schools is a record of change and experiment and of a struggle between two principles, the principle of concurrence and the principle of sequence in literary and professional studies. A disturbing and complicating factor was added by the necessity, rightly emphasized by the Government of India, for rapidly increasing the outturn of trained teachers, even if courses had to be shortened and some degree of theoretical efficiency sacrificed to utilitarian considerations. With an abbreviated course of training it is evident that a greater proportion of the time available must be devoted to theoretical and practical work on the professional side, and that literary work must be relegated to schools and colleges for general education. These considerations finally turned the scale in favour of the principle of sequence, and the literary work that filled up the Normal students' time under the old curriculum was, for the most part, abandoned. In most of the grades, therefore, the initial qualification for entry had to be raised in order to secure that students taking a shorter training should not be inferior in literary qualifications to those trained under the old curriculum. In the year 1913-14 the courses came under revision, and modified regulations were approved in 1914-15. In 1916-17 the Committee on Female Education examined the Normal School curricula and made recommendations in the direction of further simplification, in order to increase the outturn of trained teachers without a proportionate increase of expense, and, by extending the application of the principle of sequence of studies, to avoid the duplication of teaching in literary subjects and the vexatious multiplication of examinations. The new scheme, formulated primarily in the interests of female students, was found applicable with few modifications to male students also, and the regulations of 1914-15, which were now seen to be clearly of a transitional character, were recast.

The Elementary Training Classes for teachers of Primary Vernacular schools, which were established in 1912-13 have proved very successful and are supplying annually over two hundred teachers of a very useful type. Candidates for training are selected from backward areas and return to their villages at the end of the year's work, to teach in aided schools or to open new schools of their own. The initial qualification is a pass by Standard IV Vernacular, and the training is of a practical character intended to make the student competent to teach thoroughly the simple curriculum of a primary school.

The number of Normal Schools was 12 the same as last year, four for female, eight for male students, but girls attend four of the latter schools. There is also a Kindergarten training class for girls at St. Michael's European School, Maymyo. The Elementary Training Classes number 19, one of these being an Urdu class in Akyab. Of the remainder, four are for girls, and one of these is held in connexion with a monastic school at Sagaing under a very enlightened *pôngyi*, U Thila. Seven other such classes are held in Monastic Schools and one of these

admits girls as well as boys. The following statement shows the distribution of students :— CHAP. VII.—INSTRUCTION.

	Anglo-Vernacular.				Vernacular.			
	1915-16.		1916-17.		1915-16.		1916-17.	
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
High School Certificate ...	49	25	48	25	9	...	7	...
Middle School Certificate ...	22	11	46	14	152	41	124	22
Primary School Certificate ...	87	85	89	85	130	66	148	99

In the Elementary Training Classes were 189 male and 56 female students; in all 651 male and 301 female students, compared with 642 men and 290 women in 1915-16. Excluding the Elementary Training Classes, Normal students numbered 707 in 1916-17 compared with 677 in 1915-16. The following statement shows the Examination passes :—

	Anglo-Vernacular.		Vernacular.	
	1915-16.	1916-17.	1915-16.	1916-17.
High School Certificate	38	19	15	27
Middle School Certificate	72	99	228	222
Primary School Certificate	90	79	512	425

The total annual output of teachers of all kinds Anglo-Vernacular and Vernacular, including also the Elementary Trained Teachers who qualified decreased slightly from 1,118 in 1915-16 to 1,107 in 1916-17. In spite of the improvement in the numbers of Anglo-Vernacular trained teachers, the Education Department does not yet attract enough of the best class either of Burman or Anglo-Indian high school and college students. The question of improving the scale of pay of Anglo-Vernacular teachers is at present under consideration.

185. The number of European schools is the same as last year. European pupils rose from 4,912 to 5,177 and pupils in European schools from 5,159 to 5,387. European schools.

Apart from the satisfactory increase in numbers there has been an even more satisfactory increase in the proportion of pupils attending High and Middle School classes. The returns show an increase in the High stage of 14 boys and 49 girls; in the Middle of 47 boys and 34 girls; in the Primary of 58 boys and 26 girls as compared with 1915-16. Arts Colleges show the same as in 1915-16, *viz.* 29, but to this should be added the 25 girls who in 1917 were reading for the I.A. Examination at the Government Normal School, Rangoon. The ratio of the number of pupils in the High, Middle, and Primary departments respectively was, in 1917, 1 : 3·7 : 10, compared with 1 : 4·3 : 12 in 1916. Europeans under training in Training schools for Masters have increased from 31 to 32, those in Training schools for Mistresses have decreased from 18 to 17.

The results of the examinations are as follows :—

Examination.	1915-16.		1916-17.	
	Number presented.	Number passed.	Number presented.	Number passed.
European High School	109	47	129	61
European Seventh Standard ...	304	141	308	191

CHAP. VII.—INSTRUCTION.

186. The total number of Mahomedans under instruction has risen from 22,519 to 24,899. Of these 16,531 or 66 per cent. are in public institutions. Girls alone number 3,999, an increase of 845 as compared with 1915-16. The proportion of children in public schools to the total Mahomedan population is slightly higher than the corresponding figures for all classes of schools taken together. Mahomedans attending Mahomedan public schools, Vernacular or Anglo-Vernacular, number 8,772, or little over half the total of those in public institutions. The remainder attend Burmese or Anglo-Burmese schools, a fact which has to be borne in mind in discussing Mahomedan education. The rapid increase in the number of schools and pupils is due in large measure to the appointment in 1912 of a separate Mahomedan Deputy Inspector of Schools for Arakan, and in 1916 of a Mahomedan Deputy Inspector of Schools for Upper Burma, the opening of an Elementary Training Class for Urdu teachers in Akyab and the payment of salary grants to fifteen teachers trained there. In Government Anglo-Vernacular schools, wherever the demand justified the expenditure, Urdu teachers have been appointed for Mahomedan pupils. Some of these measures were the outcome of a conference of gentlemen interested in Mahomedan education held in 1913. The number of Anglo-Vernacular schools for Mahomedans has risen from 4 to 5, all in Rangoon, and pupils in attendance from 374 to 496. Vernacular public schools have risen in number from 167 to 189 and pupils from 7,517 to 8,276. Muktab schools teaching the Koran only are shewn as 299 with 8,358 pupils, compared with 253 and 7,171 pupils in 1915-16, but the statistics of Muktabs are not to be implicitly trusted. The proportion of Mahomedan pupils who proceed to the High stages of schools and to College is shewn by the returns of public examinations to be increasing.

Education of Mahomedans and special classes.

The table of passes is as follows:—

	1915-16.	1916-17.
B.A.	1	2
I.A. and I.Sc.	5	9
Matriculation	13	21
Anglo-Vernacular High School Final ...	9	16

Of the races included in the term "special classes," the Karens in their various tribes are the most numerous and important, and their educational progress is uniform, though not so rapid as the progress of education amongst Burmans. There are 13 Anglo-Vernacular and 1,165 Vernacular Karen schools, with 2,822 and 32,047 pupils respectively, on the aided list. Tamil and Telugu Anglo-Vernacular schools have increased from 14 to 15, and pupils from 2,099 to 2,381, but Vernacular schools have declined from 64 to 58 and attendance thereat from 2,364 to 2,060. The more permanent Madrasi population prefers English education. Their Vernacular schools are mostly ephemeral institutions and fluctuate greatly in numbers according to the demand for imported labour and the earnings of the labouring classes. Education in the Shan States has made rapid progress in spite of great obstacles. It was found necessary to provide two additional Sub-Inspectors in the Northern Shan States. An elementary training class was opened at Lashio in 1916. Shan Vernacular schools have increased from 106 to 167, attendance from 3,556 to 5,473. Two of these schools, at Lashio and Mogôk, are managed by Government. Boarding hostels have been opened at Lashio and Hsipaw. Taungthu schools have increased from 24 to 68 and attendance from 783 to 1,809. Danu schools fell from 30 to 29 and attendance rose from 842 to 875. Intha schools have declined (75 to 20, attendance 1,815 to 713). These schools lie in the Yawnghwe State. Eleven Lahu and Lawa schools, with an attendance of 450 pupils, have been registered. At present Western Shan and Burmese are the two languages recognized in the schools. The Government Anglo-Vernacular School for the Sons of Shan Chiefs, with 88 pupils, continues to do good work. Chin schools have increased from 36 to 43, of which two are Anglo-Vernacular, and the attendance from 1,275 to 1,706. There are three Government Vernacular schools for Chins; both Anglo-Vernacular schools are under Missionary management. Kachin schools remain the same as last year, 19. The attendance rose from 611 to 660. Talaing schools have risen in number from 90 to 91, but attendance fell from 4,615 to 3,398. Schools for the Blind are

working at Moulmein and Kemmendine. The former is managed by a Committee, which was reconstituted in 1912, and is doing useful work. The number of pupils in the Moulmein school is 27, in the Kemmendine school 7. Plans for schools for Deaf Mutes are under consideration. The treatment of defective children is rendered difficult by the unwillingness of parents to send such children to central schools in the large towns. The problem has not yet been thoroughly considered by the Local Government, and the best method of dealing with defective children has not yet been ascertained. Four children were discharged cured from the Kemmendine school in one year. There is no doubt that a considerable proportion of the blind children in the Province could be cured if they were brought under treatment early, and the plans under consideration include prophylactic and remedial measures in which the Medical and Educational Departments will co-operate.

Female education.

187. The number of schools classed as girls' schools has increased from 994 to 1,077, when compared with 1915-16. The number of girls in public institutions has risen from 113,301 to 120,207, an increase of 6·1 per cent. Mahomedan girls in public schools rose from 704 to 896. More than four-fifths of the total increase is in the Lower Primary stage, which contains 85 per cent. of the pupils: but that there is a growing demand for somewhat higher education of girls is shewn by a comparison between the percentages of increase at each stage; High 26, Middle 11, Upper Primary 10, and Lower Primary 5 per cent. Progress in the High Stage is confined to Anglo-Vernacular and European education and the total number is small (312).

The curricula in girls' schools remained unchanged. Girls take the same courses as boys, except in the Middle and High departments of European schools and the Middle departments of Anglo-Vernacular Middle schools. In European Middle schools, Domestic Economy is compulsory for girls, but History and Second Language, which are compulsory for boys, are optional for girls; in the High school, Hygiene must be taught as an extra subject if Domestic Economy is not chosen as one of the optional subjects, but a second language is optional for girls, though compulsory for boys. In Anglo-Vernacular Middle schools, girls must take Domestic Economy and Needlework in lieu of Geometry, but exceptions are permitted in the case of girls attending boys' schools or preparing for admission to a Normal school or college. Such exceptions are numerous. The Committee on Female Education appointed at the end of 1916 approved important changes in the courses for girls on the recommendation of the Ladies' Sub-Committee deputed to consider the special needs of girls. The proposals of the Sub-Committee emphasized the necessity of teaching Domestic Economy and Needlework to girls in all classes of schools; in order to enable girls to devote more time to these subjects, the courses in other subjects were to be modified and simplified. The introduction of special courses for girls is inevitably hampered by the system of co-education which prevails not only in the Village Vernacular school, but in the Anglo-Vernacular and European schools under Missionary management. The extent to which co-education prevails is seen from the fact that there are three times as many girls in schools for boys as in schools for girls. Ninety-five per cent. of the girls in schools are in vernacular mixed schools. It is true that more than half are in the Lower Primary stage, in which a differentiation between courses for the two sexes is hardly a matter of first-rate importance. But after making the necessary deductions it is clear that there are about 16,000 girls, in standards above the Lower Primary, reading in mixed schools. The Committee on Female Education adopted a resolution in favour of the separate vernacular education of girls above Standard IV or above the age of 12, in any area where adequate facilities for such separate education exist.

Reformatory School, Insein.

188. The proposal to transfer the Reformatory School to Thazi has had to be abandoned owing to difficulties in connexion with the water-supply, as well as financial stress, and it remains at Insein. The number on the rolls at the end of March 1917 was 91, 4 less than in March 1916. One-third of the boys are non-Burmans, chiefly Indians. The crafts taught, in addition to elementary education in the Vernacular, are Carpentry, Shoe-making, Canework and Tinsmith's work.

CHAP. VII.—INSTRUCTION.

Religious and Moral training form part of the ordinary routine. From November 1916 a Burmese *Sayadaw* or his substitute has preached to the boys on Sundays and Buddhist holy days. Under the revised regulations of 1915-16 the school is brought more directly under the control of the Education Department, but the Visiting Committee still inspects monthly and gives invaluable assistance. The change from the cubicle to the dormitory system has been carried out without hitch or untoward results. Discipline under milder conditions is good, though two boys escaped during the year, of whom one only was recaptured. For the first time Athletic Sports were held and prizes given, on Durbar Day, 1916. The returns for 1916-17 shew that, of 25 boys discharged from the Reformatory, 5 cannot be traced. None was reconvicted, 2 practise trades taught in the school, 9 practise other trades.

Literature and the Press.

Publications registered.

189. The number of books published annually in the Province has decreased progressively since the beginning of the war. It was 362 in 1913, 302 in 1914, 275 in 1915 and only 255 in the year of report. Of the number of books published 177 were in Burmese, 21 in English, 9 in Pâli, 14 were bilingual English-Burmese, 23 Burmese-Pâli, 5 were in Sgaw-Karen, 2 in Urdu, while there was one each in Gujerati, Shan, Talaing and Anglo-Gujerati. The falling off has been most marked among books on religion which numbered only 95 in 1916, as against 195 in 1913, and 142 in 1915. The decrease since last year is somewhat counterbalanced by a rise from 51 to 83 in the number of books classified as "Miscellaneous" under which category a considerable number of books are shown which really deal with religious subjects. The majority of the religious books are in Burmese or Pâli and deal with Buddhist philosophy and religion, there being the usual text-books on monastic discipline, religious meditation, and other accepted methods of freeing the soul from sin. Twelve books were published by Christian Missions and deal with Christianity. There was a marked increase in imaginative literature, the number of plays going up from 11 to 17 and the number of works of fiction showing a precisely similar rise. Of the plays two were in Gujerati, and the remainder in Burmese. Six of the latter were founded on Jataka stories, two were historical, and the others had new plots in conventional setting usually with a supernatural interest. The works of fiction were, all except one, novels in Burmese. Four dealt with historical subjects, and the remaining twelve were novels dealing with modern Burmese life. There has of recent years been an extremely interesting development in this respect. There has been an increasing number of novels modelled on the pattern of the modern English novel, and written in language that is much more closely akin to colloquial Burmese than to the highflown literary diction. Most of the novels are crude pieces of work, and a satisfactory literary medium has not yet been evolved. But the most recent attempts shew a decided improvement on the earlier ones. And with numerous writers in the field, the evolution of a satisfactory literary medium is merely a question of time. No historical work of any importance, and no work on medicine was published. The only legal books were some handbooks and digests intended mainly for students. Twenty-one books classified under the head of Language were published during the year, seven of which were keys to school text-books or crambooks There were 7 books on Pâli grammar. Other books published comprise works on astrology, medicine, magic, biographies, song-books and the rules of various societies. An interesting series of thirteen booklets which appear to have hit the public taste, are the Sommasa or Counsels of Wunsayemin U Gyi, a collection of precepts which reflect the shrewd judgment and experience of a man of the world. The only English works of any general interest were a book of essays and verses, and a book on big game shooting in Lower Burma.

Presses, newspapers and periodicals.

190. Excluding the Government presses there were 163 presses in the Province, as against 157 in the previous year. In Rangoon 4 presses ceased work and 9 new presses were opened, the number working being 70 at the close of the year.

One press in Mandalay ceased work during the year, leaving the number at 29. Two new presses were started in Insein, one in Hanthawaddy, and three in Prome. Two presses closed down in Tharrawaddy, and one each in Prome and Thatôn. The number of newspapers published was 47 as against 49 in the previous year. In Rangoon 5 newspapers, and in Toungoo one, ceased publication. A new paper appeared at Akyab, as did 3 at Rangoon. Of the daily newspapers 3 were in English, 3 in Burmese, 2 in Anglo-Burmese, one in Tamil and one in Chinese. Of the total number of newspapers daily and otherwise, 16 were in English, 12 in Burmese, 6 in Anglo-Burmese, 5 in Sgaw-Karen, 2 in Kachin and one each in Pwo-Karen, Chinese, Gujerati, Tamil, and Urdu. Of a total number of 25 periodicals other than Government publications 11 were in Burmese, 10 in English, 2 in Anglo-Burmese, one in Sgaw-Karen, and one in Tamil. Eight periodicals ceased publication during the year, and five new ones were started.

Literary Societies.

See paragraph 294 of the *Report on the Administration of Burma* for the year 1911-12.

Rangoon Societies.

191. No new society was formed during the year and there is nothing of interest to note about existing societies. The membership of the Rangoon Literary Society fell from 140 to 132 during the year. Its income was Rs. 6,364, as against Rs. 6,147 in the previous year. The library was increased by 334 books during the year. Three lectures were delivered during the year under the auspices of the Rangoon Teachers' Association. The number of visitors to the library and reading-room increased from 8,284 to 10,439 during the year of report. The Bernard Free Library issued 9,305 books to 1,691 registered borrowers, as against 7,829 books to 1,526 borrowers in the previous year. Visitors to the reference library numbered 9,545 as against 7,648.

Arts and Sciences.

192. The condition of the art industries of the Province has not improved materially since the previous year, nor is it likely to improve until financial conditions become normal. The only industry which has received the benefit of Government aid in the way of instruction and advice is the weaving industry. This, through the medium of the Saunders Weaving Institute, has achieved some measure of progress. Co-operation has also extended to the lacquer-ware industry, but it is too early to say what effect this has had on the development of trade.

The chief event of the year was the exhibition which was held at Rangoon in December 1916. This was an extension of the usual Arts and Crafts Exhibition. It was opened by His Excellency the Viceroy and remained open for a fortnight. During this period some 50,000 people visited the Exhibition. The Exhibition included not only the Art Industries but there were also sections for Forestry, Agriculture, Mineralogy, Archæology, etc., and the whole was made as inclusive a representation of the industries of the Province as the short time available for preparation allowed.

The system of art apprenticeships continued. The number of apprentices receiving Government stipends was twelve, of whom four were resident at the Engineering School, Insein, and were in receipt of training under the master-craftsmen resident there, two learning wood-carving and two bronze work.

CHAPTER VIII.

ARCHÆOLOGY.

REFERENCE—

Report of the Superintendent, Archæological Survey, Burma, for the year 1916-17.

193. The programme of work of the Archæological Department for the year comprised ten items. Nothing was done during the year so far as three of the items are concerned. It was not found possible to proceed with the archæological examination at Yathemyo (Pegu) and Twante, nor with the excavations near the Payagyi Pagoda near Hmawza, and the revision of the catalogue of exhibits at the Pagan and the Mandalay Palace Museums was interrupted by the removal of the exhibits for the Industrial Exhibition at Rangoon in December 1916. Considerable progress was made with all the other items. The four negatives which were wanting in the previous year to complete the collection for the "Monograph on the terra-cotta plaques representing scenes from the 550 Jatakas found at or near the Petleik Pagoda at Pagan" were obtained at the Patodawgyi Pagoda, Amarapura, where there is another series of plaques, which dates from the early part of the nineteenth century, illustrating Jataka stories and depicting scenes of Indian life in an entirely Burmese setting, whereas the plaques from Pagan are, except for the form of the houses, Indian throughout in style and technique. Materials for the compilation of the letter-press of this monograph were collected during the year. Good headway has been made with the "History of architecture at Pagan" The monograph on the Ananda Temple at Pagan has been brought nearer completion by the decipherment and translation of the Talaing legends on the 400 plaques of the temple. The chronological list of all the inscriptions found in Burma was completed during the year, and underwent revision prior to publication. Satisfactory progress was made with the translation into English of the collections of inscriptions in the volumes known as "Inscriptions collected in Upper Burma, 1900" and of the "Original inscriptions collected by King Bodawpaya." The work of deciphering the Pâli inscription on the Myazedi pillar was completed. The Burmese, Talaing, and Pyu inscriptions on this pillar have already been translated, so that the work on this monument, which has proved of the utmost value for fixing definite dates in Burmese history from the eleventh to the end of the thirteenth century, is now almost finished. Further study of the frescoes discovered in 1916 at Min-nan-thu near Pagan, has shed fresh light on the history of religion at Pagan before the eleventh century. It is now fairly clear that the northern school of Buddhism or Mahayanism existed there before the introduction of Hinayanism, or the southern school, and was brought from Bengal or Northern India about the sixth century. The Aris or priests of this northern school fostered superstitious and degraded practices and officiated at animal sacrifices. This is probably the reason why the Burmese historians have so emphatically denied the existence of Buddhism at Pagan before the introduction of Hinayanism on the conquest of Thatôn by Anawrata. During the year Mr. C. O. Blagden continued his admirable work in the decipherment of ancient Talaing inscriptions and completed the translation of the inscription at the Shwezigon Pagoda, which contains an account of the accession of King Kyanzittha. No archæological discovery of outstanding value was made during the year but the finding of a number of inscriptions, figures, urns, coins, etc. was reported by officers of various departments, a fact which shows that a general interest in the archæology of the Province has now been awakened. A request made to the Lieutenant-Governor on his visit to Akyab in February 1917, that an archæological officer should be stationed there to supervise the preservation and restoration of the antiquities of Arakan also bears witness to this awakening, while the good example set by the *Thathanabaing* and by U Kanti, the Hermit of Mandalay Hill, in repairing ancient monuments should go far to break down the long-standing prejudice against such action. In the archæological section of the Arts and Handicrafts Exhibition held at Rangoon from the 4th to the 16th of December there were exhibited representative specimens of Buddhist sacred statuary, votive tablets, plaques, coins, wooden figures, inscriptions and also photographs of typical specimens of Burmese architecture sacred and profane.

The amount expended on archæological works in 1916-17 was Rs. 29,751, as against Rs. 14,852 in 1915-16. The cost of the Archæological Survey was Rs. 33,774 which is Rs. 165 less than the amount expended in the previous year.

CHAPTER IX.

MISCELLANEOUS.

REFERENCES—

Report of the Chemical Examiner to the Government of Burma for the year 1916.

Report on the working of the Pasteur Institute and Bacteriological Laboratory for the period of eight months from the 1st August 1916 to the 31st March 1917.

Statistical Abstract for British India, Volume IV.

Report on the working of the office of the Superintendent, Government Printing, Burma, for the year ending the 31st March 1917.

Ecclesiastical Jurisdiction.

See paragraphs 297 to 300 of the *Report on the Administration of Burma* for the year 1911-12.

Ecclesiastical.

194. During the year of report the new church at Maymyo was brought into use and also a church at Yenangyaung for the oil-fields chaplaincy. The Right Reverend the Lord Bishop of Rangoon left for a short furlough in England under medical advice, leaving the Archdeacon in charge of the diocese as his commissary. The Government Chaplaincy at Thayetmyo was closed and a Government Chaplain appointed to Mandalay, which has now the larger garrison. Two vacancies occurred on the establishment by resignation and were filled up. One chaplain resigned in order to take a combatant commission in the Army, and another left Burma for active service in Mesopotamia.

Stationery.

195. The bulk of the paper used for official purposes continued to be supplied by the Controller of Printing, Stationery and Stamps, Calcutta, from the Indian mills. The cost of stationery supplied to General Departments and Presses in Burma during the year amounted to Rs. 69,162 and Rs. 2,47,023 respectively, showing a decrease of Rs. 3,535 under General Departments and an increase of Rs. 30,398 under Government Presses as compared with the previous year. The increase under Government Presses was due to the abnormal rise in the cost of all stationery supplies.

Offices of the Chemical Examiner and the Bacteriologist to the Government of Burma.

196. Two thousand one hundred and one examinations were carried out, against 1,818 in 1915, in the Medico-legal Department. There was an increase of 82 cases of human poisoning. The number of blood and seminal stain cases increased slightly from 712 in 1915 to 747, but the articles examined fell from 1,259 in 1915 to 1,243. In the General Analytical Department, only 18,982 articles were examined, against 23,834 in 1915. The cause for the continued decrease is ascribed to fewer samples of cocaine being received for examination

CHAP. IX.—MISCELLANEOUS.

owing to restriction on, and to stricter examination of, imports. Water analyses were made in 287 cases against 367 in 1915. Municipalities and other local bodies continue to have their sources of water-supply tested whenever necessary. The Bacteriological work is now being done under the supervision of the Director, Burma Pasteur Institute, Rangoon, and 124 Histological Examinations, 235 Bacteriological, 391 Serum and, 10 Miscellaneous Examinations, and 436 protective inoculations were done.

Office of the Superintendent, Government Printing, Burma.

197. The Government Presses in the Province are three in number, *viz.*, the Central Press and the Jail Branch Press, both in Rangoon and the Maymyo Branch Press. The work which is carried out at these Presses is chiefly printing for Government Departments. The receipts amounted to Rs. 46,126 in the year of report, against Rs. 47,260 in the previous year, and the expenditure to Rs. 3,46,212, against Rs. 3,75,057. Printing work to the value of Rs. 1,110 was given out to private presses during the year. The value of the outturn of work from the Central Press was Rs. 3,10,931, from the Jail Branch Press, Rs. 74,198, and from the Maymyo Branch Press Rs. 14,489, in all Rs. 3,99,618. The corresponding total for 1915-16 was Rs. 4,12,787. The value of Dead Stock at the three Presses, exclusive of lands and buildings is estimated at Rs. 5,22,297, against Rs. 5,55,474 in the previous year. The total sales, excluding Gazettes, at the Government Book Depôt and by the authorized agents, amounted to Rs. 14,216, while the additions to stock were valued at Rs. 52,907. Acts and publications to the value of Rs. 40,872 were supplied gratis during the year.

Printed by order of the Government of Burma.

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Map
OF
BURMA
SHOWING
DIVISIONS AND DISTRICTS
1917-18
Scale : 64 Miles = 1 Inch.
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Boundary between Lower and Upper Burma
Divisional Boundary
District Boundary
Tributary Shales
District Headquarters
Principal Towns and Villages
Cantonments
Railways completed
Railways in progress
Embankments
Principal Roads
Principal Mule tracks
Chief Irrigated areas
Light-houses and Light-vessels
BENGAL
CHINA
SIAM
BAY OF BENGAL
LUSHAI HILLS
CHITTAGONG
SOUTHERN SHAN STATES
MERGUI ARCHIPELAGO

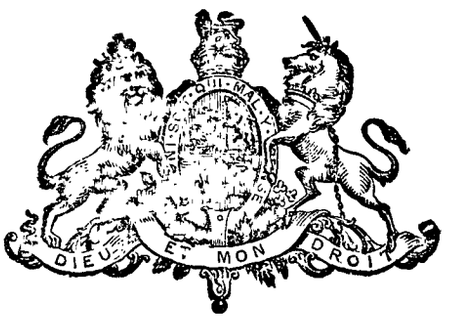
REPORT

ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR

1917-18



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[The maximum length of the Narrative Chapter is 10 pages, and of Part II (excluding the chapters of standard information) 150 pages.]

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REPORT

ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR 1917-18.

PART I.

NARRATIVE CHAPTER.

1. The beginning of the year found the Province still struggling with the difficulties raised by the war, such as the shortage of staff, the necessity for the strictest economy, and the retardation of its agricultural, commercial and industrial development. The scarcity of shipping was acutely felt.

While schemes for the improvement of the administration and for the moral and material progress of the Province were examined and discussed, with a view to their introduction when funds or the cessation of the war should permit, the main efforts of the Local Government continued to be devoted to the utilisation of all the resources of the Province in men, money and material to aid in the vigorous prosecution of the war. The services of many of the Local Government's officers were put at the disposal of the military authorities, and a jail porter corps was prepared for service overseas. Many members of the civil police joined the new Burma units or obtained a transfer to the military police in the hope of seeing active service. The number of men of the military police who, since the war began, had volunteered and been sent on active service overseas rose during the year from 5,214 to 9,858 including 301 mounted infantry, out of a sanctioned strength of 16,409; and excellent accounts of the behaviour and efficiency of those who had already gone on service were received from their commanding officers at the front. A vigorous recruiting campaign was begun by means of a central committee for the Province, district committees and honorary recruiting agents. The result was that in spite of their love of home and a natural shrinking from the novelty and unknown dangers of service in foreign countries, the people of Burma had at the end of June 1918, besides European and Anglo-Indian units and volunteers from the Military Police, over 6,000 men in combatant and 2,500 in labour corps. The success of throwing military service open to the indigenous races was proved. At the same time experience showed the dangers of haste in recruiting and the disadvantages of training Burmese recruits at places within easy reach of their homes.

Similar agencies were employed to popularize investment in the war loans. In spite of the general reduction of income, the rise in the price of necessaries and the depression in trade, the people of Burma contributed £2,000,000 to the war loan of 1917 and had invested over £330,000 in that of 1918 by the end of June of that year. The Local Government hardly needed to urge the people to contribute to the various war charities. All races and communities vied with one another in supporting them, their efforts culminating on "Our Day" when a sum of £60,000 was collected for contribution to the Red Cross. The women of the Province were untiring in their efforts to maintain a steady supply of comforts for the troops at the front.

A Controller of Munitions was appointed, with an Advisory Board to assist him in the collection and despatch of war material. Large quantities of railway rolling-stock were supplied to the military authorities. The mines in the Tavoy

District were carefully inspected in order to secure the maximum output of wolfram ; communications were improved, the output of the metal rose by 25 per cent. and a new field was discovered. The Research Officer of the Forest Department was appointed Deputy Controller of Timber Supplies under the Indian Munitions Board and devoted all his energies to his new duties. Large quantities of timber, both teak and other woods, for railway sleepers, for the building of wharves, bridges, huts, trenches, etc., and for use in the Ordnance Department, were extracted from the forests of the Province, collected on the bank of the Rangoon River and despatched to Egypt, Mesopotamia, Salonika and India.

Relations between the Burma Government and the Siamese, French and Chinese authorities beyond the frontiers of the Province were most cordial : and the tribes in unadministered territory within the frontiers, with the exception of the few affected by the Chin rising, were friendly and peaceful. The loyalty and prosperity of the Shan States were shown by the help given by their people in recruiting and in connection with the war loans. Generally, the people of Burma loyally supported the Government. In spite of the cumulative effect of four years of war the revenue was promptly paid and there was a welcome decrease of crime.

The Chin rising was the only disturbance to the peace of the Province. Apprehensions among the Kukis in Manipur regarding recruiting, and the intrigues of the hostile Chief of the Haokip clan, led to a rising of the tribes in the southern part of the Chin Hills and the northern portion of the Upper Chindwin District. The disturbances were checked by means of the Burma Military Police, aided by the Assam Rifles, but further active operations have since been necessary in order to complete pacification and finally restore order. With the exception of an isolated outbreak in the Pakôkku Hill Tracts, the rebellion did not spread to any other portion of the frontier ; which may justly be taken as evidence of growth of confidence in British rule, and appreciation of its benefits, in the minds of the frontier tribes.

In the interior the people, being more dependent on foreign markets, were more affected by the war. The outstanding feature of the year was the heavy fall in the price of rice after the main harvest. The end of 1917 found a large balance of the 1917 crop still undisposed of, and the new crop came to a market which was not prepared to buy save at a price which left no margin of profit to the cultivator. The lack of freight due to the submarine campaign was the main factor in the case. The middlemen held back, deterred by losses sustained on their transactions in the 1917 crop, the price of which declined steadily after harvest. The large demand for rice for consumption in Europe did not become effective till the season had advanced, so that few of the cultivating classes reaped the benefit of the subsequent rise in price. Seventy per cent. of the population of the Province depends for its living on agricultural and pastoral pursuits ; rice, of which much is exported, is its staple crop, and the season was therefore a bad one for the bulk of the people. Their own food, however, which consists mainly of rice, fish and vegetables, was cheap and abundant. In the warm climate of Burma clothing is an unimportant item of expense, and they were able to provide themselves with a sufficiency of it in spite of the increase in the price of cotton manufactured goods. The health of men and cattle was good, and the depression in the rice trade was partially balanced by activity in some others and in the extraction of wood for military and other purposes. The prices of many staples other than rice were good, and the incomes of much of the population in the parts where they are grown, chiefly in Upper Burma, must have increased. No doubt the prices of many articles of personal and household use were very high, but the wants of the bulk of the population are simple. Luxuries, of course, had to be given up, a fact illustrated by the remarkable decrease in the import of oilman's stores, of which the Burmans are very fond, and of silken goods, their holiday attire ; and travelling, a favourite amusement of the people, had to be curtailed. The revenue, partly in consequence of a postponement of collection of land tax conceded by the Local Government, was collected with little difficulty. On the other hand, a number of small cultivators had to part with their land owing to the financial stress, and the difficulties of

agriculturists were reflected in a considerable increase of the amounts of agricultural loans made to them by Government the payment of which was suspended or overdue.

The Province was in some respects thrown back on its own resources by the war. Some of the most interesting results were the revival of local wooden shipbuilding, both in Rangoon and in Moulmein, the latter a port which used to be renowned for its teak ships, and the exploitation of local products such as soapsand for making caustic soda, and barks found in the dry zone for tanning purposes.

2. Government is in the position of a landlord over much of the land of Burma, directly taxes its cultivated and controls the disposal of its waste land; hence the administration, as well as the development of the land, is of great importance. The rules concerning the sale of land for recovery of arrears of land revenue were altered to prevent their operating harshly in the case of owners living far from their lands. Progress was made in surveying extensions of cultivation, land leased for mining and rubber-planting, waste lands selected in accordance with the policy of the Local Government for colonization by carefully chosen agriculturists on co-operative lines, and areas for dwelling houses in the rapidly rising mining town of Tavoy. The policy of the Local Government has been of late years to encourage the extension of cultivation without title and to issue formal grants or leases only under special circumstances or for the cultivation of special crops, and in the case of rubber to discourage the formation of small estates which cannot be worked on commercially sound principles. An officer was therefore placed on special duty to select suitable areas for reservation for large rubber estates.

3. The increasing volume of true cognizable crime in the Province reached a maximum in 1916 and the slight decrease, in spite of the continuance of the war and of the shortage of Police Officers, which occurred in 1917 was most satisfactory. The decrease was mainly due to a decline in the less serious offences, especially in theft both of goods and cattle, and violent crime increased, especially in the forms of murder, culpable homicide and robbery. For the first time for many years the daily average number of prisoners of all classes in jails was less than the accommodation available. The chief causes were the reduction in crime and the measures taken to release certain classes of prisoners after a careful examination of their case records and to employ other classes of prisoners on the ticket-of-leave system in industries where there was a scarcity of labour.

The extreme prevalence of crime in the Province has long been a problem of the administration. The fundamental causes seem to be both historical and economic. The Burmans are a people who are being rapidly brought into contact with a progressive modern civilization. Their development has taken place in certain directions only. For military protection and for the benefits derived from science and industry they have to depend largely on other races. Their chief occupation, agriculture, is not so profitable as it was and there is increasing competition for land; rents have risen and there is little security of tenure. Immigration from India and China has affected their opportunities for employment. The administration has not yet succeeded in organizing the mass of the people to take an active part on the side of law and order and in creating a vigorous public opinion against the criminal. The Burmans have now been given an opportunity of serving in the armies of the Empire, and the development of education, both technical and literary, the encouragement of scientific and industrial pursuits and the improvement of agricultural methods and conditions now occupying the attention of the Local Government must be trusted to counteract these historical and economic causes, while direct attempts are also being made to solve the problem by improvements in village, police, judicial and prison administration. The Burman is mainly a dweller in the village or small town of less than 5,000 inhabitants, and his daily life depends to a great extent on the efficiency with which village administration is organized through the village headman. Measures were taken to increase the emoluments of the headman and improve his social and official status and make him less of a petty official than

before. Experience has shown the advantage of improving the personnel of the headmen and inducing them to take an active interest in the prevention and detection of crime. Many headmen continued to be entrusted with guns for the protection of their villages against robbers and dacoits, and this measure doubtless prevented many violent crimes against property. The raising of the pay of the police, though urgently needed, proved impracticable for financial reasons, but their accommodation, which in Rangoon Town is such as seriously to threaten the efficiency and discipline of the force, was improved. The action taken by the Local Government with regard to the reformative treatment of juvenile and first offenders, the imposition of reasonable, and not excessive, fines, and the avoidance of sentences to short terms of imprisonment has already had a good effect. Undue prolongation of criminal trials has an adverse influence on the conviction of criminals and has long been recognized as an evil, but unfortunately the increase of executive duties owing to the war prevented any improvement. Steps were taken to remedy overcrowding in the jails and so separate to a further extent the casual from the habitual criminal and at the same time improve medical and racial separation. Selected prisoners under nineteen years of age were sent to the Juvenile Jail at Meiktila, and several convicts whose sentences had been remitted by the Local Government were sent to the Salvation Army's Industrial Home, which had been opened in the previous year, with good results.

That the people had less recourse to the civil courts was probably due to the adverse economic conditions and the passing away of the feeling of insecurity prevalent in the first years of the war. Increased discretion in dealing with juvenile and first offenders found a parallel in the leniency shown by the civil courts to judgment-debtors, and it is interesting to note that similar leniency was shown by headmen in dealing with offending villagers. The Local Government has now before it proposals for two important changes in judicial administration, the establishment of a High Court for the Province and the appointment of District and Sessions Judges.

4. The wealth of Burma other than agricultural is still largely undeveloped, and the war retarded the exploitation of its products other than those such as timber and wolfram and other metals. Agriculture continued to flourish and extend, and progress was made in irrigation works, of which the chief was the Ye-u Canal. The lower courses of the Irrawaddy and the Sittang have already been embanked on one side, to the great advantage of agriculture. Similar protective works were in progress on a smaller scale on the other bank of the Irrawaddy in the Ma-ubin District, and on a still smaller scale in the Yenwe River in the Pegu District, the problem in the latter case being complicated by the use of the river for floating logs from the forests and the necessity of securing from damage the railway from Rangoon to Mandalay.

The policy of the Local Government is to extend the activities of the Agricultural Department as far as funds allow. The department, though hampered by the delegation of some of its superior staff to military duty and by the want of an agricultural college for the Province, continued to select and distribute good strains of rice for seed, and its experiments tended to show that the clay of Lower Burma on which the bulk of the rice crop is grown, the fertility of much of which has greatly deteriorated since it was brought under cultivation from waste, needs phosphates rather than potash, and responds best to the stimulus of heavy organic manures. Bonemeal is too expensive, and burnt husk, though useful, is not sufficient. One of the chief problems before the department is to find a cheap fodder which may be profitably used by the cultivators of rice and enable them to stall-feed their cattle and dispense with public grazing grounds, which at present bear scanty grass and help to spread cattle disease. The report of the special committee appointed to enquire into the breeding, tending, sale and supply of stock is still under the consideration of the Local Government.

The Local Government relies greatly on co-operation for the development of agriculture. The Co-operative Department too suffered from reduction of staff, but the increase of nearly 20 per cent. in the number of co-operative societies and

the opening of a fourth central bank show that distinct progress was made. Members of societies are now exercising more control over their committees and chairmen, and discuss in their meetings not merely technical points but all subjects affecting local economic interests. The unions, which continue to be the chief agencies for administration and propaganda, showed increased efficiency. The Provincial Bank at Mandalay had a successful year and continued its policy of amassing reserves to provide complete security for depositors rather than declaring large dividends. A pleasing feature of the year was the unexpected growth of co-operation among traders in towns. The policy of the Department is now to extend co-operation only in places where success is almost certain, to organize a staff of well educated and well trained Assistant Registrars, one of whose principal duties will be the systematic and thorough inspection of unions, and to bring the societies into close touch with the district officers. The Burmans, through economic and other causes, have lost much of their land and contracted large debts. The Co-operative Banks cannot at present offer long-term loans to redeem these lands or liquidate these debts; and so the issue of bonds secured on land mortgages either by these banks or by special land mortgage banks is receiving the special attention of the department.

The forests of Burma are one of its greatest sources of wealth and are largely untapped. It is significant that the cost of making a road into a forest is rapidly paid for by the resulting increase in revenue. The area of reserved forest added during the year was trifling, but many miles of cart-roads and bridle-paths were constructed. Arrangements were made for clearing the rice-fields of teak trees, usually small and of little value, to the mutual benefit of the State and the cultivator, who is not permitted to cut them himself. There was again great activity in the extraction of fuel for use in railways and steamers on account of the scarcity and high price of coal.

Little development of industry has been possible in late years, and the chief task of Government has been to secure safe and healthy conditions for the employees in the rice, cotton, oil and timber mills. There was hardly any sign of a revival of the village weaving industry in the plains. The people were usually unable to save the high cost of piece-goods by making their own cotton clothing and cotton blankets, as they have to buy yarn and the price of it was very high.

Scarcity of shipping, abormal rates of freight, and war restrictions checked the recovery in trade which had begun in the previous year. The value of the total trade in private merchandise fell about 9 per cent. However, the export trade to foreign countries greatly improved, a fact which is illustrated by the increase of about 26 per cent. in the receipts from export duty. The export of rice fell by over 8 per cent. in quantity; shipments to the United Kingdom rose by over 60 per cent. to the record figure of over half a million tons; but shipments to India fell by about 50 per cent. to a little less than that amount. Shipping again decreased by 15 per cent. in tonnage, but that engaged in the foreign trade rose by nearly 2 per cent. There was a remarkable increase in shipping flying the French, Italian, Japanese and Chinese flags, and a decrease in that flying the Norwegian.

The scheme for a comprehensive and co-ordinated system of roads, waterways and light railways was still under the consideration of the Local Government, but the need for economy prevented the construction of any important new roads. The policy of developing communications in the mining districts and in the new frontier district of Putao, and of replacing wooden by permanent bridges, was continued. A survey of the Patkai Range was made with a view to ascertaining the best route for a railway between Burma and India, and an extension of 18 miles of the Southern Shan States railway was under construction. The navigation canal recently constructed at a cost of nearly 54 lakhs of rupees from Rangoon to Twante, to form a short cut in the route by river between Upper and Lower Burma, earned a nett revenue of three lakhs.

5. The Provincial Settlement remained unchanged during the year. It is based on estimates of the revenue and expenditure of the Province, which in the

case of the former have not been realised. The rate of increase of forest revenue was largely over-estimated. In the year of report receipts credited to Imperial Funds rose by nearly 5 per cent. to 4,50 lakhs of rupees and those credited to Provincial fell by a little over 6 per cent. to Rs. 5,56 lakhs. The absence of freight and the consequent lack of demand and low price ruling for rice necessitated a partial suspension of the land revenue collections. A substantial portion of the demand was outstanding at the close of the financial year on the 31st March, and to this extent the receipts for the year were abnormally low. The demand of land revenue proper rose in fact by over Rs. 9 lakhs, and usually very little remains outstanding at the end of March. A large increase in Customs revenue was the result of briskness in the export trade. Receipts from Forests, which are wholly credited to Provincial Funds, amounted to 1,24 lakhs of rupees, much the same as in the previous year, a decrease due to the fall in the price of teak owing to lack of demand for want of shipping being balanced by an increase due to the continued demand for timber for military purposes and for fuel.

The policy of economy was continued. Imperial expenditure fell by nearly 14 per cent. to 53 lakhs of rupees. On the other hand, Provincial expenditure rose by over 3 per cent. to Rs. 5,78 lakhs. Much of the increase was unavoidable, such as sums spent on military police and on the operations against the Chin rebels; much of it was productive, such as the amount spent on the Ye-u Canal, on departmental extraction of timber and on the Co-operative Department; and much of it was incurred on public instruction, such as the cost of the site for the University and grants made to schools and teachers.

The revenue of the Rangoon Municipality increased on account of the normal development of the town; and, in spite of the acquisition of sites for a central market—an important step towards the better control of the food supply—and the extension of the central fire station, its financial position considerably improved. The Rangoon Municipal Bill, dealing with the improvement of the administration, and the Rangoon Development Trust Bill, dealing with the extension of the city on the most modern lines of town-planning, were under the consideration of the Local Government with a view to their introduction into the local legislative council. The expenditure of most other Municipalities and Towns was decreased by the transfer of the cost of Anglo-Vernacular Education to Provincial Funds and of Vernacular Education to Municipal Funds, and by the postponement of schemes of improvement which the scarcity and high cost of materials rendered economically necessary. The revenue of the Rangoon Port Fund suffered from the decrease of shipping, but, by the exercise of strict economy, an addition was made to its reserve funds and securities for its debts. The river training wall remained firm and continued to consolidate.

6. Many officers of the Medical Department were again absent on military duty, but a satisfactory increase took place in the number of patients treated and in the attendance of Burmese women and children. An increase in the number of deaths from fevers was most noticeable in the mining districts, and unfortunately there was less quinine available for distribution to the people. Voluntary efforts directed to the reduction of infantile mortality were extended. The accommodation for lunatics remains very inadequate and steps are being taken to expedite the completion of the scheme for building the new asylum, which has long been contemplated, on adequate but not too expensive lines.

7. Just before the outbreak of the war the increase of expenditure on education had caused an unprecedented expansion in every department, and that in collegiate education had shown the necessity for a local university. The war involving large demands for service from the superior staff, the cessation of payments from the non-recurring grants and a general curtailment of expenditure at once retarded this expansion and continued to do so during the year. Colleges and schools sent many of their staff and pupils on war service. The number of registered monastic schools declined. The dislocation caused in the economic conditions led to a considerable decrease of pupils, both of boys and girls, in the lower primary

standards, which was specially noticeable among Buddhists attending public institutions. The number of Mahomedan pupils on the other hand increased considerably.

Nevertheless, several improvements in method were carried out during the year. The first steps towards systematising educational finance, by transferring the cost of Vernacular Education to Local funds and of Anglo-Vernacular and European Education to Provincial funds, were taken. Improved courses for Normal schools and curricula for both Anglo-Vernacular and Vernacular schools were put in force. High Schools ceased to prepare candidates for the Matriculation Examination of the Calcutta University. A special curriculum was sanctioned for vernacular primary schools to suit boys who had no intention of proceeding to middle schools.

The results of the various examinations, which test the progress of secondary education, were very satisfactory. Among the pupils who passed the university examinations was the first Burmese lady to take a degree. The scheme for the initiation of the University made little progress on account of financial difficulties. There was a serious decline in attendance at Normal Schools for males, and a notable scarcity of European male teachers. The increase in the number of pupils in Drawing and Gardening in schools, and of students in science at the colleges showed the awakening interest in technical and scientific knowledge. The recently created Divisional School Boards were on trial during the year, and were occupied chiefly with questions of finance. In each Division, except Irrawaddy, district advisory committees were appointed to assist them. The Rangoon School Board, which is fortunate in dealing with a small area and having ample means at its disposal, vigorously attacked the problems of supplying trained teachers and improving school accommodation.

As is manifest from the above narrative of events the dominating feature of the administration throughout the year was the war. Such activities or developments as took place related to the war. Other considerations were subordinated to the one great objective. The development of war industries has benefited those engaged in those particular industries; but the scarcity of shipping and the high prices of imported commodities have made living more expensive and have tended to reduce the profits of the cultivator. The administration has had to be carried on with a reduced number of officers, most of whom have had extra work thrown upon them, and leave long over-due has been denied. With the termination of hostilities and the signing of the armistice, the high pressure has to some extent been relaxed; but a considerable time must elapse before normal conditions can be restored. Conditions generally are still unsettled, and political reforms and financial readjustments have still to take a definite shape. Apart from war activities, the year has been one of preparation rather than of action. There are still many problems to be solved, and obstacles to be removed, before the steady and well-ordered progress of the Province and its people can again be set in motion; but it is permissible to hope that the experiences and trials of the past years will not be thrown away, and that the approaching years may have in store for Burma a period of progress and prosperity, during which the arrested development of so many of its activities may find its compensation in an advance —political, administrative, moral, and material—greater than anything that has yet been achieved.

PART II.

DEPARTMENTAL CHAPTERS.

NOTE.—The departmental reports and other references on which this *Report on the Administration of Burma* is based, are noted at the beginning of each chapter. The departmental reports do not all cover the same period. The reports on the Administration of Civil and Criminal Justice, the Police, Prisons, the Registration Department, the Salt Revenue, the Measures adopted for the Extermination of Wild Animals and Poisonous Snakes, Lunatic Asylums, the Report of the Chemical Examiner, the Report on the Working of the Indian Factories Act, 1911, and the Resolution on the Reports on Village Administration deal with events which took place within the calendar year 1917; the Shan States, Chin Hills and North-Eastern Frontier Reports, the Land Revenue, Land Records and Forest Administration Reports, the Season and Crop Report, the Report on the Working of the Co-operative Societies Act and the Report of the Department of Agriculture are concerned with the agricultural year from the 1st July 1917 to the close of June 1918. All other reports cover the twelve months of the official or financial year that ended on the 31st March 1918.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

REFERENCES—

Report on the Administration of the Shan and Karenni States for the year ended the 30th June 1918.

Report on the Administration of the Chin Hills for the year ended the 30th June 1918.

Report on the North-Eastern Frontier for the year ended the 30th June 1918.

Season and Crop Report of Burma for the year ended the 30th June 1918.

Land Records Administration Report of Burma for the year ended the 30th June 1918.

Report on the Civil Veterinary Department (including the Insein Veterinary School), Burma, for the year ended the 30th June 1918.

Report on the Sanitary Administration of Burma for the year 1917.

PHYSICAL.

Physical Features of the Country, Area, Climate and Chief Staples.

For information on this subject reference should be made to paragraphs 1 to 8 of the *Report on the Administration of Burma* for the year 1911-12.

POLITICAL.

Historical Summary.

For information on this subject reference should be made to paragraphs 9 to 18 of the *Report on the Administration of Burma* for the year 1911-12.

Form of Administration.

For information on this subject reference should be made to paragraphs 19 to 38 of the *Report on the Administration of Burma* for the year 1911-12 and to paragraph 1 of the *Report on the Administration of Burma* for the year 1914-15.

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Character of Land Tenures : System of Survey and Settlement.

For information on this subject reference should be made to paragraphs 39 to 55 of the *Report on the Administration of Burma* for the year 1911-12.

Civil Divisions of British Territory.

For information on this subject reference should be made to paragraphs 56 to 68 of the *Report on the Administration of Burma* for the year 1911-12 and to paragraph 2 of the *Report on the Administration of Burma* for the year 1914-15.

Details of the last Census : Tribes and Languages.

For information on this subject reference should be made to paragraphs 69 to 76 of the *Report on the Administration of Burma* for the year 1911-12.

Changes in the Administration.

The Lieutenant-Governor.

1. The Hon'ble Sir Spencer Harcourt Butler, K.C.S.I., C.I.E., I.C.S., was Lieutenant-Governor of Burma during the year until the forenoon of the 22nd November 1917 when he made over charge to the Hon'ble Mr. Walter Francis Rice, C.S.I., I.C.S., who had been appointed to officiate. The Hon'ble Mr. Rice made over charge of the Lieutenant-Governorship to the Hon'ble Sir Reginald Henry Craddock, K.C.S.I., I.C.S., on the afternoon of the 17th December 1917. Sir Reginald Craddock officiated in the appointment to the 15th February 1918 when he obtained the substantive appointment.

Administrative territorial changes.

2. With effect from the 23rd October 1917, a new township, called the Labutta Township, with headquarters at Labutta, was constituted in the Myaungmya District. With effect from the 1st November 1917 fifteen village-tracts were taken from the Salingyi Township of the Lower Chindwin District and added to the Palè Township of the same district. With effect from the 28th January 1918, the Kungyangôn Township in the Twante Subdivision of the Hanthawaddy District was divided into two townships called Kungyangôn North and Kungyangôn South. With effect from the 28th March 1918 certain very small alterations were made in the boundary between the Ma-ubin and Myaungmya Districts.

With effect from the 1st of April 1917, the Embankment and Myaungmya Divisions of the Pegu Public Works Circle were reconstituted and the former was transferred to the Irrigation Circle.

With effect from the 1st of July 1917, the Twante Canal Public Works Division, which had been transferred with effect from the 1st of April 1917 from the Rangoon to the Irrigation Circle, was abolished and its works were handed over to the Insein and Embankment Divisions.

The Public Works Divisions in the Rangoon Circle were reconstituted and now consist of the Hanthawaddy Division with two subdivisions, Twante and Kyauktan ; the Insein Division with four subdivisions, General Hospital, Government House, Insein and Prome Road ; and the Rangoon Division with three subdivisions, Military, Town and Barrack.

The Somra tract, formerly unadministered, in the Chin Hills was taken under administration.

Additions to and changes in the administrative staff.

3. During the year of report the 1st grade in the Subordinate Civil Service was increased by one to provide for an officer for the new township of Labutta in the Myaungmya District and the 3rd grade by one to provide for an officer for the new township formed in the Hanthawaddy District.

The 5th grade of the Provincial Judicial Service was increased by one to provide for an officer to preside over the newly formed Subdivisional Court at Akyab.

The appointment of Assistant Inspectress of Schools, Burma, was filled for the first time. Owing to the scarcity of officers on account of the war the office of the Adviser to the Tawngpeng *Sawbwa* was left vacant.

Relations with Tributary States and Frontier Affairs.

(i) *Shan and Karenni States.*

[*Southern Shan States*: 37 *States, area* 36,154 *square miles, population* 836,574, *tribute Rs.* 2,71,800. *Karenni*: *five States, area* 4,280 *square miles, population* 63,628, *tribute Rs.* 5,350; *Northern Shan States*: *five States, area* 16,594 *square miles, population* 480,390, *tribute Rs.* 1,54,500; *Möng Mit*: *area* 3,562 *square miles, population* 53,214, *tribute Rs.* 20,000; *Hsawnghsup* (*Thaungdut*): *area* 579 *square miles, population* 6,887, *tribute Rs.* 400; *Singkaling Khämti* (*Zingalein Kanti*): *area* 983 *square miles*; *population* 2,560, *tribute Rs.* 100; *Khamti Löng* (*Kanti-gyi*) *or Bhor Khamti*: *area* 200 *square miles, population* (*approximate*) 6,221; *tribute Rs.* 2,500 (*approximate*).]

The Southern Shan States.

4. The *Sawbwa* (ruling prince) of Kēngtūng was decorated with the C.I.E. The *Sawbwa* of Lai Hka, Hkun Lai, C.I.E., K.S.M., one of the fast diminishing band of Chiefs who made their submission to the British Government in 1887, died during the year and the State was put in charge of the chief official, the *Sawbwa's* son having shown himself unfit to succeed and being absent in the 4/70th Burma Rifles. The *Myoza* of Möng Nawng, whose extravagances had loaded him with debts, was ordered to reside in Taunggyi till they were repaid and his son was placed in charge of the State, but his conduct and management were disappointing. Other unsatisfactory administrations were those of Möng Hsu; of Kehsi Mansam where public gaming was encouraged; of Möng Sit; and of Thamakan, where State money was misappropriated; but several States showed marked improvement. Further subscriptions to the Indian War Loan of 1917 raised the total to Rs. 11·10 lakhs; Rs. 30,596 was contributed to the Red Cross during "Our Day" and individual Chiefs contributed to it and other such funds. A call was made for recruits for the Burma Labour Corps and 305 recruits were accepted, though many had to be rejected chiefly on account of enlarged spleen. Recruiting for the 4/70th Burma Rifles began and 20 men joined the Mechanical Transport Company. Camps were constructed and occupied by 3,000 Turkish prisoners of war, who were employed on the extension of the railway from Aungban to Heho. A disastrous fire at Langhkö in Mawkmai State in the hot weather burnt 177 houses and caused damage to the extent of one and a half lakhs of rupees.

The hill station of Kalaw continued to progress. Sixty-three leases of land for European houses were issued; thirty-three houses have been completed and ten are nearly finished; a large number of visitors came for the hot weather.

The lawlessness in Yünnan continued, but the only effect in the Shan States was idle rumours of disturbance. Precautions were taken however. The Assistant Superintendent of Kēngtūng with an escort of military police toured along the border and a party of the *Sawbwa's* police was posted at Möng Yawng. Crime on the border and crimes committed by Chinese decreased, but travellers to or from Chinese territory had to be heavily armed. Only once was a caravan attacked in British territory. Many caravans with specie, with men varying in number from 30 to 150, most of them armed, came across the border from China, surrendered their rifles readily on demand and were given weapons sufficient for their protection while in Kēngtūng State and the privilege was not abused. About 11 lakhs of piastres reached Kēngtūng.

The troops sent against the Wa of Hsi-Ming-Shan in the previous year were relieved. A rising of the Muhsö tribe took place towards the end of the year of report. A Burman ex-monk came to Kēngtūng with a small following, but fell into trouble with the people and was killed. The Chief of Keng Hung continued friendly and co-operated in the recovery of property stolen from traders. A branch of the American Presbyterian Mission in Northern Siam has now been opened at Keng Hung.

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The French frontier continued peaceful and relations with the French officials were most friendly. The Commissioner of the Mekong Province visited Kēngtūng and discussed matters and settled some trivial cases with the British officials and the *Sawbwa*. The Siamese frontier was also quite undisturbed.

The Shan company of the Military Police Battalion was disbanded at the end of the year of report and will be replaced by Gurkhas. The battalion which consisted of 970 men at the end of the year, furnished 163 men for active service abroad as well as 240 for the Chin Hills column. A slackness of discipline due to frequent changes of officers led to an increase of punishments in the civil police. The number of cases reported to the Government Civil Police rose from 254 to 379, but this large increase was not due to a great increase of crime, as many of the cases were found to be mistaken. The Yawnghwe State Police did good work in recapturing 8 Turkish prisoners of war who escaped from their camp at Thamakan and in recovering stolen cattle. The village police in the Myelat did fairly well, but detection in cattle theft was poor in many parts of the States. The number of true criminal cases reported in the year fell from 1,255 to 1,210. Violent crimes increased from 39 to 45, including 24 offences against human life, 9 robberies with murder, 9 other robberies and 3 dacoities. In the case of many robberies with murder in Kēngtūng, Chinamen were the victims (and probably also the perpetrators) as they go about the State with large sums of money seeking opium. The number of true cases of cattle theft rose from 175 to 180 and that of reported cases of ordinary theft from 305 to 349, but there was a decrease in other crime.

The number of civil suits filed fell from 753 valued at Rs. 1,09,637 to 711 valued at Rs. 1,18,160 and of suits disposed of from 765 to 695. Seventy-two per cent. of the suits filed were under Rs. 100 in value and only three suits were over Rs. 5,000. Suits for land fell from 32 to 29, for money from 551 to 482, and for other relief rose from 170 to 200, chiefly divorce cases. No formal demand for extradition was made to the Siamese Government during the year. The number of prisoners in the jails at the close of the year rose slightly from 165 to 169, but the number of admissions decreased from 1,282 to 976.

The rainfall of 1917 was timely and well distributed, very little damage was caused by floods and crops were good. The low price of unhusked rice was felt by cultivators but food was abundant. In Kēngtūng State both prices and the standard of living rose. The cultivation of potatoes increased, and the price varied from Rs. 8 to Rs. 18 per 100 viss. Tobacco was successful; a large part of the crop was destroyed in the fire at Langhkö and the price rose from Rs. 50 to Rs. 75 per 100 viss; sessamum and garlic did well. The outturn of wheat decreased, but over 35,000 maunds were exported and fetched a higher price. Cotton was a fairly good crop and realised a very high price. The phenomenal price of opium led to a marked increase in its cultivation. The rubber plantation at Hsahtung was in a healthy condition, but was not yet ready for tapping. A considerable area has now been planted with camphor trees, but distillation on a large scale was prevented by want of machinery.

Except in the North-Eastern States and Kēngtūng, where rinderpest broke out, the year was a very healthy one for cattle. Wages tended to rise at Kalaw. The price of pack mules and pack ponies rose by 30 per cent.

There was a marked decrease in the output of teak; the gross forest revenue fell from Rs. 1·66 lakhs to Rs. 0·67 lakh and the expenditure from Rs. 0·95 lakh to Rs. 0·94 lakh; the number of offences against the forest laws rose from 44 to 81.

The number of applications made for prospecting licenses rose from 30 to 46 and of licenses issued from 12 to 22. Wolfram was chiefly sought for. The number of mining leases in force fell from 5 to 3, but renewals of two expired leases were applied for: all five were for lead and silver. The output of lead rose from 39,542 viss to 46,400 and that of wolfram increased, but no silver was extracted.

A sum of Rs. 4·67 lakhs was spent by Government on public buildings at Kalaw, Loilem and other places, besides camps for Turkish prisoners of war and roads and bridges. The states spent Rs. 2·66 lakhs on public works and Rs. 1·10 lakhs of tribute was remitted for public works carried out by them. A post office

was opened as an experiment in the Yawnghwe State and a temporary one at the war-prisoners' camp at Thamakan and postal business increased. The receipts of the States rose from Rs. 12 lakhs to Rs. 12·84 lakhs and their expenditure fell from Rs. 12·24 lakhs to Rs. 12·20 lakhs.

Plague caused a few deaths and a severe type of malarial fever was prevalent in Yawnghwe State. Elsewhere the people were healthy. The number of patients treated in hospitals and dispensaries under the supervision of the Civil Surgeon, Taunggyi, rose from 44,467 outdoor and 1,328 indoor to 48,599 outdoor and 1,380 indoor and of those treated under the supervision of the Civil Surgeon, Loimwe, fell from 13,503 of whom 715 were indoor to 13,441 of whom 758 were indoor, but the decrease was partly due to the closing of the dispensary at Nammawngün in October 1917 owing to the demands of the war for medical officers. It appeared that, though the better classes of the people disliked going to a public hospital, they appreciated the value of skilled medical treatment. The number of vaccinations performed under the authority of the Civil Surgeon, Taunggyi, fell from 18,770 of which 17,743 were successful to 15,098 of which 14,276 were successful and under that of the Civil Surgeon, Loimwe, from 3,356 of which 2,889 were successful to 2,756 of which 2,215 were successful. The decrease was due partly to shortage of staff, but steps were taken to secure better results. The quantity of quinine issued by the Treasury at Taunggyi fell from about 12,000 grains to 4,000 and the supply was quite inadequate to meet the demand. The occurrence of plague led to cleansing operations in many places. The water-collecting tank of Möng Nai town was thoroughly cleaned, Samka town was laid out in blocks with suitable service roads, and minor improvements were made in many of the capitals of the States.

The number of registered schools and scholars increased from 145 and 4,085 to 157 and 4,492 (of whom 1,486 were girls) respectively. Mission schools continued to flourish. Arrangements for beginning the training class for teachers at Yawnghwe in temporary premises were made. The need of qualified teachers was greatly felt. The number of boys in the school for the sons of Shan Chiefs fell from 88 to 87. All the boys in the seventh and the boy in the tenth standard passed the yearly examination and the school was very well reported on. Three boys, all sons of *Sawbwas*, left the school to continue their education at St. Paul's School, Rangoon. Three boys including the son of the late *Sawbwa* of Lai Hka have entered the army.

The Karenni States.

5. The revenue of the two larger Karenni States continued to improve and progress in all branches of the administration was maintained. Subscriptions to the Indian War Loan of 1917 reached a total of Rs. 1·24 lakhs. The *Myoza* of Naungpalè died in the year of report and his heir is not popular, so the future administration of the State remained unsettled. The difficulty with the Wiwa villages was settled and the revenue demanded from them was paid. Relations with Siam were most friendly. The Viceroy of Chiengmai touring in the east of Kantarawadi State visited Ywathit and was cordially welcomed and Major Sylow of the Siamese *Gendarmerie* met and settled a case with the Assistant Political Officer.

The State police helped to recover stolen cattle and elephants. The number of true cases of crime reported to the courts fell from 144 to 130; violent crimes increased from 4 to 7 (all murders), and ordinary thefts from 32 to 46, but cattle thefts fell from 38 to 30 and other crimes from 70 to 47. Of the murders four were undetected, in two the accused were acquitted and one was pending trial at the close of the year. Only nine cases of cattle theft were brought to trial and 22 persons out of 27 arrested were convicted.

The number of civil suits filed during the year fell from 60 valued at Rs. 59,249 to 43 valued at Rs. 18,081. The Chiefs accepted advice readily and suits were dealt with promptly. No application for extradition was made. The number of prisoners admitted to State jails during the year fell from 143 to 121 and the number in custody at its close rose from 10 to 26.

Crops were good except in some areas along the Salween River and imports of rice declined. No disease occurred among cattle. Experiments in the

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growth of potatoes, wheat, cotton and coffee were made. The forest revenue amounted to Rs. 1·39 lakhs. The output of the Mawchi mines of tin and wolfram increased considerably and would have been greater if landslips had not retarded work. The quantity of ore milled rose from 20,027 tons to 26,358 and of concentrates extracted from 581 tons to 704. Export was carried on by Papun and Moulmein, by Toungoo and by Loikaw and Aungban. Seven fatal accidents occurred. Five applications for prospecting liceness were made.

The amount spent on public works rose from Rs. 25,078 to Rs. 48,498, Rs. 2,500 of each of which was in the form of tribute remitted. In Kantarawadi State part of the main road from Taunggyi was put in good order. Bridges, *zayats* (small rest houses,) petty irrigation works, police quarters and (at Kyèbogyi) a court-house were constructed.

Rice was unusually cheap, there was no lack of employment and the year was a prosperous one for the States. The gross revenue of the five States rose from Rs. 1·90 lakhs to Rs. 2·60 lakhs, chiefly on account of an increase in revenue from timber and to the payment of arrears of revenue by the Mawchi Mines Company. That of Kantarawadi State alone rose from Rs. 1·34 lakhs to Rs. 1·72 lakhs, chiefly on account of an increase in revenue from forests, and its expenditure was Rs. 1·88 lakhs, but this sum included payments to the reserve fund which now stands at Rs. 1·23 lakhs invested in Exchequer and Indian War Loan Bonds. A budget was framed for the Bawlakè State for the first time and a reserve fund was established.

The number of outdoor and indoor patients treated in the Civil Hospital at Loikaw fell from 5,806 to 5,373 and rose from 141 to 177, respectively. The number of vaccinations fell from 4,903 to 4,685 and steps have been taken to improve matters. The quantity of quinine sold again fell greatly.

The number of schools dealt with by the Education Department rose from 39 to 46, of which 23 belonged to the American Baptist and 4 to the Roman Catholic Mission and of the others 15 were monastic and 4 lay, and the number of pupils from 722 to 940. The number of passes in the various standards fell from 361 to 326 for boys, but rose from 118 to 160 for girls.

The Northern Shan States.

6. Strenuous campaigns on behalf of recruiting and the War Loan and the general rise in prices brought the war home to the people and liberal contributions were made to the "Our Day" fund and other war charities. Several *Sawbwas* and lesser Shan officials were rewarded with titles, etc., for services in connection with the war.

Large numbers had enlisted in the Labour Corps, but it was disbanded during the year. Forty-four Kachins were enlisted for the Burma Military Police. Roads and ferries in the Hsipaw and South Hsenwi States were guarded at reduced cost against revolutionaries from Siam. The *Myoza* of Möng Tung was removed by the *Sawbwa* of Hsipaw for extortion. Unrest among the Kachins in North Hsenwi indicated by unusual sacrifices on hills and in ravines and said to be headed by one of the ringleaders of the Kachin rebellion of 1893, was settled by the arrival of the local officers with escorts.

Little action seemed to be taken by the Chinese authorities to suppress the cultivation of opium on the Möng Mao, but they were active in the suppression of smuggling of opium and salt. Rumours of disturbances in China were prevalent and levies of men and money were undoubtedly made in the Chinese Shan States. The high price of opium on the frontier caused an increase of crime and several dacoities were committed on this side of it by Chinese. A gang of about 200 bad characters which had collected near the Kengma border was dispersed with the aid of the Chinese authorities. The feature of the annual meeting at Nawngma for the settlement of border cases was the fact that the Chinese Deputies had been empowered as District Magistrates and so were not afraid to assume responsibility. Forty-eight cases were settled, no referrence to the Appellate Court being necessary, and compensation of Rs. 2,301 was awarded to British and of Rs. 735 to Chinese subjects. The Wa States remained quiet and a festival held by the Manglün *Sawbwa* in memory of his father proved a means of bringing the Chiefs into more friendly relations one with another.

Agricultural advances were given out in the States of Hsipaw, Tawngpeng and South Hsenwi and survey in North Hsenwi with a view to irrigation was undertaken for the State by the Burma Mines Company.

Several minor rules and regulations were brought into force during the year and the Indian Poisons Act was extended to the notified area of Lashio. The actual strength of the Military Police increased from 793 to 861 and sanction was given for a temporary outpost of half a company at Namtu and to the enlistment of more Kachins. The health of the force improved.

The sanctioned strength of the civil police remained at 112 and the actual strength was almost equal to it. Conduct and discipline were good, but the want of a training school was greatly felt. The number of cases reported to the Government police rose from 301 to 327 and the number in which conviction was obtained from 87 to 109. The percentages of convictions in cases and persons sent up for trial were 59 and 81, respectively. The number of violent crimes fell from 13 to 8 of which only one was detected. Forty-two cases of cattle-theft, the same number as in the previous year, were dealt with of which 22 were found to be mistaken and in only one of which conviction was obtained. The value of cattle stolen was Rs. 1,153 and of cattle recovered Rs. 245. Cases of ordinary theft increased from 130 to 160, many of which occurred on the premises of the Burma Mines Company. The value of property stolen was Rs. 13,772 and of property recovered Rs. 5,272. The State police were fairly successful in detection of crime. The village police did good work and proved that in a loosely administered area like the Northern Shan States they can be most useful and effective with a little help and encouragement. Registration of guns was continued. The number of offences reported to the Criminal Courts rose from 1,314 to 1,574, but the increase was chiefly under petty offences. Cattle theft showed a marked decline among the Kachins. Cases were well disposed of except in the Courts of South Hsenwi. The number of new civil suits filed in the Courts of Government Judges fell from 133 to 116, but of those filed in State Courts rose from 283 to 362. The total value of the suits filed in all courts rose from Rs. 73,652 to Rs. 89,380. The number of prisoners admitted to the Hsipaw jail fell from 88 to 75 owing partly to the tendency of the State Courts to impose punishments other than imprisonment for petty offences.

Irregular and unseasonable rain and floods made the season a disappointing one. Rice, except on irrigated lands, was damaged, but the price, except in North Hsenwi where it rose, remained fairly constant. Potatoes failed largely in Hsumhsai and the price rose. Sessamum was injured by rain and insects. Cotton increased on account of high prices and a demand for local cloth and the price rose in Hsipaw from Rs. 20 to Rs. 70 per 100 viss and in Hsenwi from Rs. 33 to Rs. 50. Tea was a fair crop. The cultivation of oranges increased, but the difficulty of preserving them for long without cold storage plant was felt. Tobacco was spoilt by frost and drought; the samples sent to Rangoon were pronounced of fair quality but badly cured. Drought affected the opium crop, but the increase in cultivation brought the outturn up to much the same as in the previous year; its price was high and reached Rs. 280 per viss. Experiments were made with white beans (*pèbyugale*) but proved unsuccessful. English vegetables and coffee gave good results. Labour, probably owing to recruiting in China and the lateness of the rains, was very scarce and wages were very high. The Burma Mines Company felt these conditions severely.

The Panghai Forest Reserve was slightly extended. Large quantities of fuel were again extracted by the Burma Mines Company and the need of a separate Forest Division for the Northern Shan States to control the supply and distribution of fuel and timber was manifested.

In spite of the increased difficulty of obtaining supplies all departments of the Burma Mines Company showed marked increase in production. Much development of the mines was carried out and 71,287 tons of ore were extracted. Improvements and additions were made to the plant, railway track, rolling stock, accommodation, etc. The outturn of refined lead rose from 14,168 tons to 18,563; that of fine silver was 2·2 million ounces. The Company maintained four geologists in the cold season and carried out an investigation of the known mineral deposits in Upper

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Burma and the Shan States. Development continued at the Namma and Hsum-kwe coal fields. About 18,000 tons of iron ore were obtained from Manmaklang and lesser amounts from other mines.

Few public works were carried out, partly because of the shortage of labour. In the Hsipaw State Rs. 1·74 lakhs were spent, about half a lakh of rupees less than in the previous year, of which a lakh of rupees was paid to the Public Works Department. Roads and bridges were built, the new Hsipaw town was laid out and a stone-crushing plant was installed. In Tawngpeng State about half a lakh of rupees was spent on roads, chiefly the Kyaukmè-Namhsan road, and the *Sawbwa* made several public improvements. In the other States money was spent on roads, bazaars, schools and rest-houses.

Plague again broke out in Hsipaw town where of 25 persons attacked 22 died and in Möng Long and Kyaukmè and 420 persons were inoculated. Small-pox occurred in several places; an outbreak of enteric near Namkham caused 32 deaths; and cholera was prevalent over most of the States. Rinderpest caused heavy losses of buffaloes and oxen in Hsumhsai. On the whole, however, the people in the Northern Shan States were prosperous during the year. Post office business increased. If it is true, as it is reported, that the Chinese are about to abandon their policy of suppression of the cultivation of opium in Yünnan, the opium problem will be simplified, as the consequent fall in price will discourage cultivation in the States. Immigration of Chinese continued.

The gross revenue in the Hsipaw State rose from Rs. 5·54 lakhs to Rs. 6·28 lakhs, but the increase was only a nominal one, as it includes part of the revenue of the previous year collected in the year of report; and the gross expenditure fell from Rs. 6.21 lakhs to Rs. 5·77 lakhs and no investments of State funds were made. Remissions of revenue had to be given on account of floods. From the closing balance of over a lakh of rupees an investment will have to be made in the Provincial Co-operative Bank to enable Co-operative Societies to obtain loans from it. In Tawngpeng receipts rose from Rs. 3·68 lakhs to Rs. 3·77 lakhs and expenditure fell from Rs. 4·56 lakhs to Rs. 3·53 lakhs; in North Hsenwi receipts rose from Rs. 2·80 lakhs to Rs. 3·98 lakhs and expenditure from Rs. 2·81 lakhs to Rs. 3·09 lakhs; in South Hsenwi receipts rose from Rs. 1·56 lakhs to Rs. 1·74 lakhs and expenditure from Rs. 1·58 lakhs to Rs. 1·66 lakhs.

The attendance at the various hospitals and dispensaries increased, partly on account of the admission to medical treatment of the general public by the Burma Mines Company who receive Rs. 2,500 from the North Hsenwi and Tawngpeng States and have now opened a well equipped hospital where Europeans can be treated. The prevailing diseases were again malaria and diseases of the digestive and respiratory systems and of the skin. The number of vaccinations performed rose from 7,467 to 13,738 of which 11,519 were successful and the number of primary vaccinations per thousand of the population rose from 17 to 26. The quantity of quinine distributed fell greatly to about 4,000 grains. The drug was very popular and the demand exceeded the supply.

The number of vernacular schools increased from 47 to 52 of which 45 were primary with 1,411 pupils and 7 secondary schools with 768 pupils and the attendance rose from 2,166 to 2,179. There were three girls' schools and the attendence of girls was 40 per cent. of that of boys; the number of pupils increased by 84 only. Monastic schools increased by three. Chinese schools are being opened in many places even in remote parts. Eleven candidates sat for the seventh standard examination and passed highest of all candidates in Upper Burma. The only Anglo-Vernacular School, that of the American Baptist Mission at Hsipaw, had adverse circumstances to contend with and the attendance of pupils was much reduced. No progress was made with the projected Anglo-Vernacular School at Namtu; at the request of the State officials proposals were submitted for one at Lashio.

Other Shan States.

7. No disturbance of any kind occurred in the Möng Mit State. The gross receipts fell from Rs. 2·22 lakhs to Rs. 1·83 lakhs, but the decrease was really only nominal and the expenditure rose from Rs. 1·82 lakhs to Rs. 2·24 lakhs, the increase being chiefly due to the investment of Rs. 40,000 in War Bonds.

The number of schools recognised by the Education Department rose from 9 to 11 including the school at Momeik, the staff of which had to be increased to cope with the increase in pupils. Six sons of headmen were being educated in it and eight in other schools.

Malaria was less prevalent than in previous years. The number of outdoor patients fell from 5,495 to 5,433, but that of indoor patients rose from 22 to 188 and the outlay on medicines from Rs. 310 to Rs. 500. There was a marked decline in cattle disease; the cases of rinderpest fell from 146 to 17 and of anthrax from 27 to 5.

The rainfall was moderate and unevenly distributed, but the crops were fair. Attempts to stop the destruction of crops by wild elephants in the Shweli area by increasing the number of licenses to shoot them were not very successful. Damage was done by floating logs to the large bridge over the Kin stream, but none to irrigation works. Rs. 6,810 was advanced to cultivators in the State and the Kodaung Hill tracts. The headmen collected the revenue slowly, but tribute, a little over Rs. 22,000 and much the same as in the previous year, was collected without difficulty.

In the Shweli area a new police-station at Kota with an outpost at Kunchaung was opened. The number of cognizable criminal cases fell from 85 to 76 and they were mostly of a petty nature. A fine of Rs. 200 was imposed on Shweli village for suppression of evidence. The number of true cases tried fell from 129 to 66 and the ratio of persons convicted to persons tried from 79 per cent. to 69. There was a slight increase to 113 in civil suits tried and a large increase to Rs. 22,701 in their value. The amount spent on public works fell from Rs. 26,011 to Rs. 22,848, much of which was spent on roads.

The Kodaung Hill tracts were again free from violent crime and tribute was collected without difficulty. The number of civil suits instituted rose from 29 to 35. Eight unlicensed guns were seized and the number of licensed guns at the end of the year rose from 229 to 231 and is likely to be increased further. Rs. 1,420 was spent on rewards for maintenance of roads. The Thaungdut and Kanti States in the Upper Chindwin District are dealt with in paragraph 8.

(*ii*) *The Chin Hills.*

[*The Chin Hills proper, area approximately* 8,000 *square miles, population* 119,556; *the Pakôkku Hill Tracts, area approximately* 2,200 *square miles, population* 17,128; *Hill District of Arakan, area* 1,500 *square miles, population* 22,234; *and tracts in the Upper Chindwin, Akyab and Kyaukpyu Districts.*]

8. The Chin Hills lie along the western border of Burma. The rising of the Chins in the Haka Subdivision in the southern part of the Chin Hills proper was the outstanding event of the year. The military operations have been described in paragraph 43 of Chapter III. The causes of the rising were the apprehensions prevailing among the Kukis in Manipur regarding recruiting and the intrigues of Pasé, the overlord of the Haokip clan, who had quarrelled with the Manipur State Durbar. In the subdivision of Tiddim only a few Thados of the Northern hills joined the rebels and the Kanhows, Soktes and Siyins rendered great help to Government. In that of Falam some young men of the Kwangli tribe tried to stir up trouble and the tribe was disarmed. The agitation spread to a certain number of villages in the Yahow tract, but the firm and loyal attitude of the Chief prevented any serious consequences. The Chiefs of the Falam and Tiddim Subdivisions made various offers of assistance against the rebels; the former undertook the guarding of the Falam suspension bridge and the Laiyo tribe the patrolling of the Pao river.

No violent crimes were committed in the Central and Northern Hills, but several raids were made in Haka in consequence of the disturbed state of the country, involving the burning and looting of villages and the murder and capture of villagers.

The wheat crop was again poor, but the staple crops (millet, jowar, rice and maize) were good, except in the Tiddim Subdivision where the villagers owing to calls for other labour had less time for cultivation.

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During the year 18 unlicensed guns were confiscated of which 17 came from Haka and 511 licensed guns were withdrawn, 405 in Haka and 106 in Falam, but some were reissued for protection against dacoits, etc. Owing to the rebellion large outstandings in tribute in Haka Subdivision were left at the close of the year. Action under the Chin Hills Regulation was taken against some Hakas and five of the Kwangli tribe were deported to Burma. Work in the Falam Fuel Reserve was suspended owing to shortage of labour and no teak was extracted. The Pioneer Camp Inspection Bungalow was burnt by Nyerlons and the bridge over the Klairon Varr on the Rilake road was washed away by floods. Dysentery was worse than usual during the year and the men of the Labour Corps draft returning from Sagaing suffered considerably, but the health of the Military Police was good. The number of out-patients treated in the civil dispensaries fell from 42,463 to 18,197, but that of in-patients rose from 350 to 2,884; eye lotion tablets are becoming popular among the Chins.

The strength of the Military Police was raised from 6½ to 7 companies and new posts were established one of 100 rifles at Kapi, 30 miles south of Haka, and one of 25 rifles at Browne Camp between Falam and Haka. The average attendance at the school in Falam rose from 60 to 67 and the two Chin boys sent to the Kindat High School did well. Work in the school at Tiddim, where the average attendance was also 67, and in the American Baptist School at Haka, which has now 44 pupils, was somewhat interrupted. The former sent two boys to Kindat High School. The American Baptist Mission School at Sakta was burnt. In October 1917, 600 Chins from the Falam Subdivision were enrolled in the Labour Corps. Half of these were despatched to France, but the rest were sent back to their homes as they were not required. The rebels burnt the Gurkha village near Haka, but it was quickly rebuilt. The authorities were greatly helped in quelling the disturbances by Howchinkup, Chief of the Kamhows.

The trouble in the Chin Hills proper led to wild rumours and weakened the prestige of the Government among the Chins in the Pakôkku Hill Tracts and a party of them attacked the Superintendent and his escort on the 16th of April 1918. The Assistant Commandant of Military Police, Mr. Alexander, and two others were wounded by arrows and a Havildar was killed. In consequence a punitive expedition was sent which burnt parts of the village concerned and peace was restored, but three of the ring-leaders have not yet been arrested. This outbreak was however the only one and the great majority of the Chins in these Tracts gave no trouble and many volunteered for service in the war. The number of licensed guns issued fell from 125 to 123. The rainfall decreased from 124 to 119 inches, but the crops were good. Crime was very light. The tribute, which was collected without difficulty, fell from Rs. 3,817 to Rs. 3,737, owing to the enlistment of many of the tribute-payers. No breach of the peace occurred on the frontier, but constant watch had to be kept on the turbulent spirits in unadministered territory, and the advisability of taking over its administration was demonstrated. The strength of the Military Police was increased by 25 men. The school at Mindat was well reported on, but that at Sundaung had to be closed as the teacher volunteered for active service and no substitute could be obtained. Education was popular but some parents fear that their sons after a few years at school will give up working in the fields.

The trouble in the Chin Hills did not extend to the Hill District of Arakan and no disturbance occurred there during the year. The Superintendent was able to settle one transfrontier fued and caused the restoration of captives in two transfrontier raids. He has a strong weapon in his ability to enforce a salt blockade on the Chiefs of the unadministered territory on the north and east. The Arakan Hills Civil Justice Amendment Regulation became law in December 1917. The principal improvements it effected were the levy of court fees and the provision for reference to arbitration only on the consent of both parties to the suit. Formerly it had been the practice to refer the majority of suits in which hillmen were concerned to the arbitration of the paid Chiefs who sometimes when perplexed by conflict of evidence resorted to trial by ordeal, the commonest form being that of holding breath under water. It was proposed to postpone the substitution of *thathameda* for tribute and taxes on crops which would involve a considerable increase in taxation. The people depend on their tobacco to pay their taxes and the market was uncertain.

The tracts inhabited by Chins on the frontier of the Upper Chindwin District are Somra, Thaungdut, Kalewa and Kanti. The Kukis of the first two were called on to join the rebels by Shempu, Pasè's father, but those of Thaungdut refused to do so and the loyalty of the Chief secured the neutrality of the villages on the east of the Somra tract. There was a good deal of raiding and inter-tribal fighting however. The provisions of the Chin Hills Regulation were made applicable to the Somra tract during the year. In Kalewa the Chin settlers were increased by parties coming from the Chin Hills and the Lushai Hills. In Kanti the Laungba Nagas were greatly alarmed by the establishment of a Kuki settlement in their neighbourhood, but so far the settlers have shown themselves friendly. The Nagas and Kachins of the unadministered territory were not affected by the Kuki rebellion and friendly relations were maintained with them by the *Sawbwa* of Kanti. The usual Military Police post of 50 rifles was kept at Kanti from November to May.

(iii) The Kachin Hills.

[*The Putao District and tracts in the Myitkyina, Bhamo and Katha Districts.*]

9. The peace of the north-eastern frontier of the Kachin Hills was unbroken during the year. In the Putao District a new Military Police outpost of 75 rifles was established at Bumhkang to form a link between Laza and Putao and Könglu outpost was permanently occupied. Early and heavy rains caused many hill clearings to be left unburnt and consequently uncultivated.

The number of violent crimes in Putao rose from one to three, namely a dacoity committed by five Lisus on Chinese traders near the frontier and two murders; in Myitkyina it fell from 8 to 4, one kidnapping with dacoity, two murders and one culpable homicide; in Bhamo it fell from 4 to 1, a murder; and in Katha, there was again no case of violent crime. The number of criminal cases instituted in Putao rose from 18 to 71, the increase being chiefly in petty cases under the Kachin Hill Tribes Regulation—thus 31 headmen were tried for not keeping up the roads between villages; in Myitkyina it fell from 146 to 114, but as the number of civil suits increased by 30 probably some criminal cases were treated as civil; in Bhamo it fell from 39 to 38 including 5 cases of theft of which two were concerned with cattle; and in Katha it fell from 20 to 13. The rebel Auche Yawng was arrested but succeeded in escaping. Vigorous action to enforce the collective responsibility of villagers and the fulfilment of the duties of headmen were taken and one or two undesirable persons were deported. The Kachin practice of hiring persons to commit murders is slowly dying out. Serious trouble in a boundary dispute between two villages was averted by the prompt action of the Military Police.

The number of civil suits instituted in Putao rose from 12 to 62 and in Myitkyina from 174 to 204. These increases were largely due to the growth of confidence in the power and permanency of British rule. On the other hand the number fell in Bhamo from 74 to 29 and in Katha from 35 to 32.

The tribute was again collected without difficulty. Collections fell from Rs. 9,318 to Rs. 9,223 in Putao; rose from Rs. 23,652 to Rs. 23,768 in Myitkyina; rose from Rs. 16,597 to Rs. 17,637 in Bhamo; and fell from Rs. 3,251 to Rs. 3,065 in Katha.

There were as before no liquor or opium shops in the Kachin Hill tracts and in Putao and Katha no seizures of opium or liquor were made. The fact that only one seizure of opium took place in Myitkyina showed that smuggling, owing no doubt to the high price of opium in China, had practically ceased. Little poppy cultivation was found except in one village of Chinese, where 15 plantations were destroyed as they were clearly in excess of the local needs, but it increased in Bhamo from which the crop is taken into China. In this district nine convictions involving 6,455 tolas of opium were obtained against Chinese in the hills.

No forests were reserved in the year of report, and the policy was tried of encouraging cultivators to plant hill clearings with teak under the supervision of the Forest Department. It was found that considerable damage was done to the pine forests by the cutting of shavings from the trees and careless use of fire.

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An officer of the Geological Survey of India visited the hills; he found nothing to substantiate the rumours of extensive deposits of silver-lead ores. The out-put of jade in Myitkyina fell from 138,922 viss valued at Rs. 4·17 lakhs to 100,258 valued at Rs. 4·04 lakhs, partly owing to the unsafe nature of some of the mines; that of amber rose from 70 viss valued at Rs. 2,340 to 1,785 valued at Rs 7,960; that of gold fell from 1,319 ounces valued at Rs. 75,794 to 641 ounces valued at Rs. 37,550; and of platinum from 6 ounces valued at Rs. 439 to 2 ounces valued at Rs. 133. The dredging company which worked gold and platinum has now ceased operations.

The appointment of new headmen, the issue of appointment certificates and the settlement of boundaries of village-tracts continued. The number of guns in the Kachin Hills remained much the same as in the previous year. Control over firearms is being gradually strengthened.

The road from Myitkyina to Putao was improved and several wooden rest-houses were built on it. The up-keep of the Putao-Könglu mule-track was taken over by the Public Works Department. Communications such as roads and mule-tracks were extended and improved by the people. Two cane bridges over the Sinan and Marau Rivers were made and work on the mule-track from Laza to the military police post at Punlumbum progressed so that it is hoped that communication between these places will soon be open throughout the year. Könglu was connected with Nogmung by a mule-track. Bridge making was retarded by high prices of materials.

Relations with transfrontier tribes were friendly and no raids took place except one in Myitkyina where some Kachins from unadministered territory assisted in a case of kidnapping. No officials or soldiers crossed the frontier from China into Putao and no boundary pillars were damaged. The annual meeting of the frontier officials of Myitkyina and the Chinese took place at Sima, and, largely owing to the presence and help of the British Consul at Tengyüeh, proved a success, as several disputes were dealt with and the compensation due from China in all settled cases was promptly paid and disbursed to the parties concerned. Relations with Chinese officials on the Bhamo frontier were, if one small dispute be excepted, satisfactory, and the annual meeting of officials on the frontier was a success.

Condition of the People.

General.

10. The season was as usual favourable for the growth of the principal crops. There was no long continued drought, though breaks in the rains caused some failures of crops in Upper Burma, nor extensive flooding from the Irrawaddy River. Some damage was caused by the Sittang overflowing its banks in the Toungoo District The supply of food was plentiful and there was also a large surplus for sale. The price of unhusked rice obtained by the cultivator in most parts of Lower Burma was on the average about 80 or 85 rupees per hundred baskets. In cases where he was able to sell early, for instance in January, he got more, but in the Arakan Division and the Amherst District of the Tenasserim Division which are remote from the main market, Rangoon, he got considerably less. These prices were much lower than those obtained in the previous years of the war and must have caused considerable diminution of profits. Cultivators who had not yet sold their grain were allowed by Government to postpone payment of land revenue for a few weeks. This gave them great relief, but much grain was still left on their hands unsold at the end of the financial year (March 1918).

On the whole, therefore, the people of the rice producing districts, that is, the greater part of the population of the Province and practically the whole of that of Lower Burma, suffered from the effects of low prices during the year. Though food was abundant, money to buy other necessaries was scarce and luxuries had to be foregone. On the other hand the people dependent on crops, other than rice, comprising most of those in Upper Burma, obtained good prices for their produce, and, as they have a lower standard of living, they felt the effects of the war less than their neighbours in Lower Burma.

The cultivators of the Province were fortunate too in their agricultural stock. There was no serious outbreak of disease and fodder and water were plentiful.

In spite of the low prices of unhusked rice, the high prices of clothing, building materials and most articles of personal and household use and the continued contraction of credit in this fourth year of the war, there was no evidence of any marked decrease in the prosperity of the agriculturists of Lower Burma and the rice-producing tracts of Upper Burma. Still less decrease must have occurred in the rest of Upper Burma as there the prices of produce ruled high. Indebtedness did not seem to increase appreciably and agricultural wages remained almost unchanged. The prosperity of the rest of the population depends chiefly on that of the agriculturists and was maintained throughout the year. In some branches of commerce and trade the war caused an increase in profits. On the whole the people of the Province seem to have reduced their expenditure to meet their reduced profits and to have suffered little or no real hardship, though they look back with regret no doubt to the series of prosperous years they enjoyed just before the war.

Notable events of the year.

11. The important events of the year were naturally the successes and reverses of the allied armies. Next in importance were the enlistment of recruits for the Burman and other regiments, and the Labour Corps; the raising of the Indian War Loans; the creation of the Indian Defence Force; and the appointment of a Controller of Munitions with an Advisory Committee for the Province.

The Recruiting Committee formed at the end of June 1917 instituted a vigorous compaign throughout the Province by means of District Recruiting Committees and Honorary Recruiting Agents. Towards the end of 1917 the Pioneers were constituted as the 1st Battalion, 70th Burma Rifles, and by the end of June 1918 four battalions, of which one was incomplete, were raised. By the same time the Sappers had expanded into three Field Companies and three Depôt Companies. Reinforcements for the Labour Corps were called for and 600 men were sent to France; but the Corps was disbanded in April 1918. In June 1917 the 85th Burma Rifles was constituted from men of the Burma Military Police and contained one Company of Kachins and one mixed Company of Burmans and Karens. In October 1917 steps were taken to raise a Mechanical Transport Company and by the end of June 1918 the total numbers recruited for it amounted to several hundreds. The actual numbers of men serving in the various war units at the end of June 1918 was approximately 2,600 in the Labour Corps; 1,200 in the Sappers; 4,500 in the 70th Burma Rifles; 500 in the Mechanical Transport Corps and 300 in the 85th Burma Rifles. Desertions from the 70th Burma Rifles at Meiktila were frequent in the first six months of 1918. Considerable numbers of men had to be dischaged at Sagaing owing to too hasty recruitment as unfit to go to France. The purchase of recruits out of money raised by villagers, which is usually the result of the demand of a definite number of men within a definite time, was a common feature in several of the Upper Burma districts but was little in evidence in Lower Burma. The Burman and Chin Labour Companies did exceedingly good work. The Labour Company which was raised under revised conditions for the duration of the war is still on service. The Burmans and Karens in the 85th Burma Rifles are now being drafted into the 70th Burma Rifles. The Burman Companies of Military Police are no longer required to supply drafts for the 85th and have been disbanded. The behaviour of the Burmese Military Police at Sagaing was excellent and the experiment of employing Burmans in the Military Police showed good promise of success. Desertion and disease greatly interfered with the training of recruits in Burma and it has been decided that the training of Infantry recruits will be carried out by Military agency in India, and the reception of recruits will be entrusted to civil officers in military employ.

The subscriptions of the Province to the Indian Government War Loan and War Bonds, 1917, amounted to about Rs. 28 lakhs at the beginning of April 1917, a fortnight after they had been thrown open to the public. The main section of the loans was closed on the 15th of June, but the post-office section remained open till the 15th of October 1917. The whole amount subscribed by the Province by

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the latter date amounted to about Rs. 300 lakhs made up of Rs. 67 lakhs of Post Office Cash Certificates; Rs. 106·30 lakhs of War Bonds, 1920; Rs. 82·71 lakhs of War Bonds, 1922; and Rs. 44·31 lakhs of War Loan, 1929-47. The number of the certificates issued was 281,109, and the number of subscribers for the others were 40,741, 49,644 and 225, respectively. Included in the above are subscriptions received through Co-operative Societies amounting to Rs. 7·93 lakhs; from Municipal Funds amounting to Rs. 16·65 lakhs; from District and District Cess Funds amounting to Rs. 3·44 lakhs; and from the War Loan Sweepstake amounting to Rs. 3·52 lakhs. The response from most of the districts was gratifying. The Sagaing and Yamèthin Districts and the Shan States did specially well, the rich districts such as Ma-ubin, Insein, Pegu and Henzada did badly in comparison.

The second Indian War Loan was opened for subscriptions on the 3rd of June 1918, and by the end of that month about Rs. 50 lakhs had been subscribed in the Province.

Large sums were contributed to the Red Cross and other societies for the relief of suffering in war. A special effort on behalf of the former was made in December 1917 under the name of "Our Day." Interest was revived in First Aid. Corps of Boy Scouts and Girl Guides were formed in the Province and the former were attached as junior cadets to the Indian Defence Force.

Among the economic effects of the war were the reduction of the train service and the increase in fares early in 1917; the issue of notes of Re. 1 and Rs. 2-8-0 early in 1918 and of two-anna nickel coins just after the end of the financial year; the revival of the building of wooden ships at Moulmein and Rangoon by Burmese ship-carpenters, which was encouraged by the visit of the Controller of Ship Building of the Indian Munitions Board; and the prohibition of the private export of rice and regulation of its price by Government.

The first awards of the titles of O.B.E. and T.P.S. were made, one of the recipients of the latter being the popular and public-spirited actor-manager, Maung Po Sein. The Linguistic Survey of Burma, Preparatory stage, or Linguistic Census and the Quinquennial Wages Census of Burma were published. Provision of camping and sanitary accommodation was made for emigrants near the Rangoon wharves. A new Central Telegraph Office was opened in Rangoon and land was acquired at a cost of Rs. 7 lakhs for the site of the proposed University.

The labours of the Suburban Development Committee, the Departmental Town Planning Committee and the Public Committee on the Development of Rangoon showed the necessity of legislation, and the Town Planning Bill (for the whole of Burma) and the Development Trust Bill (for Rangoon) were drafted and the sanction of the Government of India has been asked for the introduction of the latter Bill into the Legislative Council since the close of the year of report.

A Trade Commissioner was appointed with office in London for the whole of India. The Commission inquiring into the needs of the Public Works Department and the Industrial Commission held sittings during the year. A Committee was appointed to consider the question of establishing a Vernacular Medical School and the Standing Committee on the Imperial Idea continued its work. The Government issued orders on the employment of ex-soldiers. The arrival in India of the Secretary of State led to much discussion of constitutional reforms and various deputations went from Burma to lay their views before him. School boys under the control of the Education Department were forbidden to take part in public contests. The search for new raw materials encouraged by the war led to experiments with a view to making cloth out of the Kabok (cotton) tree, and caustic soda out of soapsand (*satpya*). Land in the Pegu District was applied for with a view to the cultivation of jute on a large scale and there was a significant increase in plant for the making of sulphuric acid. In February 1918 the general service units of the European branch of the Indian Defence Force were dispensed with after some had been trained in India. A conference of all the Indian Chambers of Commerce at Delhi was attended by a delegate from Burma, but some of its conclusions were dissented from. In June 1918 the first grants to Indians of King's Commissions in the Indian Army were made.

In the early hours of the 5th of July 1917, an earthquake destroyed the upper third of the Shwehmawdaw Pagoda at Pegu. A solid mass of masonry

resting on the old brickwork appeared to have been displaced by the shock and slipped without rolling, cutting a groove down the east side of the pagoda. The displaced materials appeared to have fallen on all sides, as nearly the whole surface was chipped. This was one of the very largest and most graceful of Burma's pagodas, held by many to be not inferior to the Shwedagôn itself. Subscriptions were called for and a lakh and a half of rupees were promised in a very short time. The people of the town themselves carried materials to the base and the assistance of the Executive Engineer was asked for and obtained from Government. He made plans and estimates for reconstruction by means of a hollow cone of reinforced concrete, but unfortunately disputes arose as to their acceptance and in consequence the work made little progress.

In June 1917 a cyclone burst on the refinery of the Burma Oil Company at Syriam. Though its path was only 150 yards broad it did great damage to buildings and killed two persons and injured 30.

CHAPTER II.

ADMINISTRATION OF THE LAND.

REFERENCES—

Report on the Land Revenue Administration of Burma during the year ended the 30th June 1918.
Land Records Administration Report of Burma for the year ended the 30th June 1918.
Agricultural Statistics of India, Volume I.

Realization of the Revenue.

Demand, collections, remissions and outstandings.

12. The Lower Burma procedure relating to sales of land for the recovery of arrears of revenue was revised by the insertion in the Land Revenue Rules of a provision enabling a landowner whose land was sold in recovery proceedings to have the sale set aside on payment within a certain limit of time of the arrears and costs, together with compensation for the purchaser calculated at 10 per cent. of the purchase price. This change was made in the interests of landowners living elsewhere than in the village tract where their land is situated, as such persons have occasionally lost their land through the failure of their agents or tenants to bring the demand of revenue to their notice.

An amendment of the Upper Burma Land Revenue Rules delegated to the Local Government the power to sanction leases of land exceeding 10 acres in area to persons other than natives of Burma, which previously rested with the Government of India.

The rules relating to town land leases in both Upper and Lower Burma were amended so as to delegate to the Financial Commissioner the power of sanctioning a short term lease in a town, where the area exceeds a quarter of an acre.

With a view to encouraging the growth of forest produce for domestic requirements special rules for grants of land on favourable terms for growing bamboos or trees other than reserved trees were prescribed for both parts of the Province.

An addition to the Fishery Rules provided for the suspension, for a period not exceeding one year of the repayment of outstanding instalments of loans made to sea fishermen for the purchase of boats or implements

The Burma Oil Field Act, 1918, which received the assent of the Governor-General on the 25th May 1918, re-enacted the provisions of the Upper Burma Oil-fields Regulation for the whole Province, in consequence of the discovery of mineral oil, with the possibility of the development of an important oil-field, in the district of Thayetmyo in Lower Burma.

The rules for the Yenangyaung and Minbu Oil-fields were amended so as to define more clearly the prohibition against the use of internal combustion engines in the congested area of the Yenangyaung field

An amendment of the Government of India's Mining Rules provided for appeal from or revision of orders passed by Collectors or Divisional Forest Officers under the rules, while a notification by the Local Government defined the procedure to be followed in such appeals or revision. A penalty for unauthorized extraction of minerals falling within the scope of these rules was provided by new rules under the land revenue enactments.

Rules were made by the Local Government under the Indian Mines Act for the regulation of tungsten and tin mines in the Tavoy District.

A new Land Acquisition Direction prescribed the procedure to be followed by Revenue Officers when a Municipality applies for the acquisition of land for laying out a new residential area or for town-planning generally.

The total current demand from all heads of land revenue rose from Rs. 4,77 lakhs to Rs. 4,89 lakhs. There were increases of Rs. 9 lakhs under ordinary land revenue, of Rs. 3·50 lakhs under petroleum, and of Rs. 1·25 lakhs under rubies, jade and amber. All other heads, except land rate in lieu of capitation-tax, town lands and miscellaneous, showed small decreases. Owing to the extension of time of collection on account of the low price of rice, however, the increase under ordinary land revenue was not collected within the year, and the total outstanding stood at the end of the agricultural year 30th June at the unprecedented figure of Rs. 9·76 lakhs. The total collections thus rose from Rs. 4,72 lakhs to Rs. 4,74 lakhs only.

Exclusive of the amounts to be credited to cess and irrigation, the demand of land revenue proper for the year rose from Rs. 3,03·68 lakhs to Rs. 3,12·78 lakhs. Of this increase two-thirds was due to the introduction of revised rates in several districts, and the balance to extension of cultivation under the favourable natural conditions which prevailed in most parts of the Province.

In the Akyab District the area under miscellaneous crops was larger by 2,684 acres than in the previous year, while resurvey and recomputation of areas produced a further increase of 1,680 acres in the assessed area. The revenue demand nevertheless shows a fall of Rs. 10,765, owing largely to the more liberal allowance of the two-anna or other privileged rates on fallow land. In the Kyaukpyu District there was a small decrease in the area assessed, but an increase of Rs. 18,578 in the revenue demand, owing to the introduction of revised settlement rates. In the Sandoway District there was some extension of cultivation and an increase of assessed area on recomputation, which, with the introduction of revised rates, produced an increase of Rs. 10,092 in the demand.

The agricultural conditions were more than usually favourable throughout the Pegu Division, and every district except Rangoon Town showed an increase in assessed area, the largest extension of cultivation occurring in the Pegu District (21,552 acres). The Hanthawaddy District showed an increase of 19,634 acres, owing mainly to the first assessment of the area of the disafforested Kadônbaw Reserve, which has been colonized on co-operative lines. The effect of the increase of area on the demand was enhanced by the introduction of revised settlement rates in the Tharrawaddy District, where the total demand was larger by Rs. 2 lakhs than that of the previous year, in the Prome and in portions of the Insein and Pegu Districts, and by the imposition of full in place of intermediate rates in the Hanthawaddy District. The increase in demand in the last was Rs. 1·63 lakhs, of which half a lakh of rupees was due to the new assessment in the Kadônbaw Colony and the bulk of the remainder to the substitution of full for intermediate rates. The demand for the whole division rose from Rs. 86·56 lakhs to Rs. 91·78 lakhs.

The rains, though late in beginning, were generally good in the Irrawaddy Division, but the Ma-ubin District suffered from floods in October and November which breached the new Yandoon Island Embankment. Extension of cultivation and reduction of the area left fallow produced an increase of assessed area in each district. The total demand for the division showed an increase of Rs. 2·66 lakhs, more than Rs. 1·25 lakhs of which, however, was due to the introduction of revised settlement rates in a part of the Henzada District.

In the Tenasserim Division conditions varied. Damage by floods caused a considerable area of cultivated land to be left unassessed in the Toungoo District and the demand fell by Rs. 31,483. In the Thatôn District there was some extension of cultivation, which with the substitution of full for intermediate rates in a portion of the district produced an increase of Rs. 41,886 in the demand. The Amherst District showed a small decrease and the Tavoy and Mergui Districts small increases in demand, the latter being due in part to assessment for the first time of rubber grants on expiry of the period of exemption from revenue. The total demand for the division was only slightly larger than that of the previous year.

In the Thayetmyo District of the Magwe Division the rainfall was deficient for the cultivation of rice and a considerable area ordinarily under it was left fallow. The conditions were favourable, however, for the cultivation of upland

CHAP. II.—ADMINISTRATION OF THE LAND.

crops, among which that of cotton was stimulated by high prices. The total assessed area was larger by some 15,000 acres than in the previous year, and this increase, with the introduction of revised settlement rates, caused an increase of Rs. 56,391 in the revenue demand. In the other districts of the division the rainfall, especially in the early part of the season, was poor, and, although an improvement in the middle rains enabled the area under the principal crops of rice to be increased in the Pakôkku and Magwe Districts, the combined demand for all crops fell short of that of the previous year in each of them. The total demand for the division rose by a few thousands of rupees only.

The Mandalay Division showed a total demand larger by Rs. 40,882 than that of the previous year. The Mandalay District, where there was again a large increase in the area under white beans, contributed Rs. 31,721 of the increase in demand. In Bhamo the rainfall was good, and in spite of considerable damage by insect pests and floods, there was a small increase of assessed area; but with the low price of rice the demand, which is calculated annually at a proportion of the value of the estimated outturn, showed a decrease. In the Myitkyina District, on the other hand, where the same system of assessment is in force, the demand increased by several thousands. Favourable early rains in the Katha District induced an extension of the principal crop of rice and of cultivation on hill clearings and the demand was well above that of the previous year. A small increase in demand in the Ruby Mines was mainly due to extension of white bean cultivation.

Each district of the Sagaing Division showed an increase of assessed area, but in the Upper Chindwin District this increase was small, and as in the Bhamo District, the low price of paddy caused a drop in the demand. In the Shwebo District an early supply of water in the irrigated areas and the promise of a good market for white beans combined to produce an increase of 45,892 acres in the area assessed. The revenue demand was further enhanced by a reclassification of soils in the area irrigated by the Shwebo Canal and rose by about Rs. 60,000. In the Sagaing and the Lower Chindwin Districts the season was favourable for the principal crops, and the demand showed increases of Rs. 27,456 and Rs. 14,957, respectively. The total demand for the division rose by Rs. 83,528.

Meiktila was less fortunate in its agricultural conditions than most other divisions and every district showed a fall in the area assessed. In the Kyauksè District and in the south of the Yamèthin District considerable damage was done by floods. In the former, land previously used for rice was in many cases reserved for white beans which eventually could not be grown owing to excessive rain, and time did not permit a reversion to paddy. An extension of miscellaneous cultivation on river-banks and islands, however, produced an increase in the combined demand. In each of the other districts the demand fell with the decrease in area. The rainfall was deficient and untimely in both the Meiktila and Myingyan Districts. The demand for the whole division fell by half a lakh of rupees.

The total amount of current land revenue remitted rose from Rs. 2·17 lakhs to Rs. 3·05 lakhs The amount remitted on account of the destruction of crops by floods was Rs. 2·41 lakhs, just a lakh of rupees more than in the previous year. Rupees 78,594 were remitted for this reason in the Ma-ubin, Rs 48,493 in the Toungoo, Rs. 37,484 in the Yamèthin, Rs. 33,558 in the Thatôn, and Rs. 17,991 in the Hanthawaddy District, but the Insein District again escaped almost entirely.

The amount remitted as irrecoverable in Lower Burma was Rs 39,072, practically the same amount as in the previous year, and was largely made up of sums due from temporary occupants who disappeared before demand for payment of the revenue was made. The unusually low price of rice for some months after the harvest caused difficulty in recovery of the revenue in many districts, and it is probable that to the amount remitted within the year must eventually be added a considerable proportion of the Rs. 9·51 lakhs shown as outstanding at the end of the year. Payment of revenue was evaded to some extent by the abandonment of land in the Shwebo District, as in Lower Burma, but elsewhere in Upper Burma the sums struck off as irrecoverable were negligible. Rupees 17,770 were remitted on account of erroneous assessment due chiefly to mistakes in the assessment of fallow land in Lower Burma.

The rice market was disorganized from the time of the harvest onwards, owing to lack of shipping to remove the crop, and, in spite of Government purchases of rice on behalf of the Royal Commission on wheat supplies in London, the market price was abnormally low for several months. The cultivators generally experienced difficulty in selling the crop, and, in spite of the good harvest, special concessions had to be made to prevent the collection of revenue from causing hardship. The customary attempts to complete the collection of the main land revenue by the 31st of March were suspended. Although in the majority of districts the demand was practically realized in the following three months, several districts were less successful; and a total of nine and a half lakhs of rupees outstanding at the end of the agricultural year involved a reduction from the previous year of half a lakh of rupees in the total collections, in spite of the increased demand.

The effect of the shortage of shipping was most seriously felt in Arakan which is the most isolated of the Divisions. In the Akyab District the crop was damaged by heavy rain at harvest time, and thereafter the market price did not rise to a level high enough to admit of a profit for the majority of the cultivators. The revenue came in very slowly, only Rs. 3 lakhs out of the demand of Rs. 20 lakhs being paid by the 31st of March, and Rs. 4·50 lakhs still remaining unpaid on the 30th of June. Conditions were similar or worse in the Kyaukpyu District, and less than half the demand of some Rs. 3 lakhs was paid by the end of the agricultural year. In the Pegu Division little difficulty was experienced in collecting the revenue except in the Pegu District, where the orders not to press for early payment seem to have been given an unnecessarily wide interpretation. In the Bassein and Ma-ubin Districts damage by rain to the paddy at harvest time accentuated the cultivators' difficulty in disposing of the crop, and consequently in paying the revenue. The Amherst District which depends largely on export from Moulmein and was therefore specially affected by the lack of shipping, showed a larger amount outstanding (Rs. 85,323) than any other district outside the Arakan Division; and in the neighbouring district of Thatôn the outstandings were also large.

In Upper Burma, the largest amount outstanding at the end of the year was in the Pakôkku District, where movements of military police in connection with the Chin rising, and the need for attending to supply and transport for the columns engaged drew the attention of the Township Officers away from their revenue duties. In the Kyauksè, Mandalay and Shwebo Districts the bulk of the outstandings of Rs. 38,831, Rs. 26,109 and Rs. 8,129, respectively, were of revenue assessed on miscellaneous crops grown on river banks and islands which falls due in April in the first two districts and in May in the last.

The unusually large sums outstanding in the few districts mentioned above, may be attributed for the most part to special reasons, and the success with which the revenue was collected in the last three months of the agricultural year seemed to throw doubt on the soundness of the hitherto accepted theory that revenue not promptly paid is likely to remain unpaid.

Revenue proceedings and coercive processes.

13. The amount of revenue, for the realization of which application was made for the issue of process, rose from Rs. 11·89 lakhs to Rs. 13·48 lakhs, but was less than in the first two years of the war. The amount realized was Rs. 10·58 lakhs. The proportion of the amount realized to the amount in arrear fell from 80·8 per cent. to 78·5. The number of warrants of arrest issued fell from 8,070 to 7,361, and the number of warrants of attachment of property issued rose from 15,109 to 15,760. Arrests rose from 1,094 to 1,671, but the number of persons actually committed to jail fell from 53 to 22. A great decline in the number of cases in which property, particularly movable property, was brought to sale further indicated that allowance was made for the special difficulties that revenue-payers had to meet during the year.

In the Akyab District, owing to the depressed conditions already described, the amount for recovery of which proceedings were taken reached the exceptionally large sum of Rs. 1·07 lakhs, and although a much larger number of warrants of arrest and attachment was issued than in the previous year, the

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percentage of recovery fell from 80 to 45. The number of arrests rose from 13 to 339, but only one person was actually committed to jail, and the fact that sales of property fell from 155 to 86 shows that no undue pressure was brought to bear. In the Kyaukpyu District the numbers of warrants of arrest and of actual arrests were larger than in the Akyab District, although a much smaller amount of revenue was involved. In Rangoon the number of proceedings for recovery of town land rent again showed a satisfactory decrease. In the Hanthawaddy District there was a larger number of sales of immovable property than in any other district, owing to the usual difficulty in collecting land revenue in the frequently flooded townships of Twante and Kungyangôn. The amount of revenue for the recovery of which proceedings were taken in the Pegu District, Rs. 1·46 lakhs, was the largest in the division and 74 per cent. above that of the previous year. The number of warrants of arrest, 998, was the second largest in the Province, but only 45 persons were actually arrested. In the Tharrawaddy, Bassein and Henzada Districts the land revenue was paid with unexpected readiness, despite the low prices of rice, and the delay in pressing for payment, instead of making collection more difficult in the end, resulted in a very large decrease in the amount for recovery and in the number of sales of property required. As usual a large proportion of the revenue in respect of which proceedings were taken in the Bassein and Ma-ubin Districts was fishery revenue, which was recovered in full in the former and very nearly so in the latter. In the Toungoo, Amherst and Thatôn Districts, particularly in the last, the number of processes issued for the recovery of land revenue increased with the difficulties arising from the low state of the rice market.

In Upper Burma, as usual, there was little need for coercive measures, although, owing to the low price of rice, payment was not made very readily and more notices than usual had to be issued in most districts. The largest amount for recovery (Rs. 69,011) was due in the Mandalay District, chiefly on account of fishery revenue. In this as in the Tharrawaddy District of Lower Burma the delay in pressing for the payment of land revenue enabled it to be collected finally with fewer processes than in the previous year. In the Sagaing District a large number of notices was issued to fishery lessees, who commonly overlook the dates when instalments of rent fall due. Eighty-six persons were arrested in the Pakôkku District.

Surveys.

Surveys by Imperial agency.

14. Topographical survey operations were continued, during the year of report, by Nos. 10 and 11 Parties of the Survey of India in the Myitkyina and Putao Districts of Upper Burma and in the Amherst, Tavoy and Mergui Districts of Lower Burma. An area of 4,599 square miles, including 318 square miles of forest, was surveyed on the half-inch, one-inch, two-inch and four-inch scales. Triangulation was also carried out in the Putao District and in the south of the Amherst District with a view to the extension of survey in detail into those districts next season.

Tidal operations were continued by No. 16 (Survey) Party at Rangoon and Moulmein, where the tidal observatories were inspected and the tide gauges cleaned, adjusted and left in good working order.

The Magnetic Observatory at Toungoo was visited and observations were taken for the purpose of comparing instruments.

Surveys by Provincial agency: extension and revision surveys.

15. During the year operations were carried out under the Burma Boundaries Act for the demarcation of hitherto unsurveyed areas to the extent of 36·98 square miles in the Thabaung Township of the Bassein District, but unfortunately the abnormal rainfall in the early part of May prevented their completion. Owing to the difficulty of procuring labour the survey of most of the areas leased for mining in the Tavoy and Mergui Districts had to be postponed. By the aid of convicts on ticket-of-leave, however, two mining concessions in the former were surveyed. The convicts worked fairly well and the experiment of their employment will be continued. Twenty-four miles of traverses were run, of which half

represents the actual length of boundary surveyed and half the length of traverses found necessary to fix the position of the areas leased, and the total cost was Rs. 1,458, or an average of Rs. 121 per mile of boundary, which is very much less than that of the previous two years.

In the Thatôn District a special surveyor was employed for two months to demarcate blocks for mining concessions in the Paung and Hlaingbwè Townships and finished five blocks comprising 9·47 square miles at a cost of Rs. 370.

The Special Survey Party under Mr. Hardless continued its work during the year. The drawing of maps and computation of areas, etc., relating to the traverse and cadastral surveys, executed the previous year in the districts of Prome, Tharrawaddy, Henzada and Ma-ubin, were satisfactorily completed at Insein during the recess. In the field season the party surveyed in detail the 264 *kwins*,* the traverse work of which had been done in the previous year in the districts of Tharrawaddy and Henzada, and completely revised the survey of 35 *kwins* in the Kyaunggôn Township of the Bassein District and of 30 in the Minbu District. The whole area cadastrally surveyed amounted to 520 square miles, 244,287 acres of which were occupied. Inspection showed the work both in the field and in recess to have been accurately done; the cost of the former was Rs. 53,500 and of the latter Rs. 10,170, in all Rs. 123 per square mile, or four annas two pies per acre of occupied area, which is a satisfactory figure.

In addition to the above the Special Survey Party also carried out extension surveys in the Bassein and Pegu Districts. In the former about two-thirds of the area, the demarcation of which has been already mentioned, was surveyed in 31 *kwins* with a gross area of 24·37 square miles, 10,060 acres of which were under cultivation. A section of the party made a topographical survey based on theodolite traverses on the scale of 4 inches to the mile of part of the disafforested area in the Yitkangyi Fuel Reserve in the Pegu District in connection with a scheme of colonization on co-operative lines and geographically connected it with the old work done by the Survey of India Party. The cost of these extension surveys was Rs. 14,000 or about Rs. 99 per square mile, and the work was excellently done. In the Myitkyina District a topographical survey on the same scale of an area of about 30 square miles for the purpose of colonization was made and similarly connected with existing trigonometrical stations by a special party at a cost of Rs. 4,570 or about Rs. 153 per square mile.

Town and fishery surveys and surveys of leased areas.

16. The only town survey undertaken during the year was carried out in the recently notified civil station in the town of Tavoy to the extent of 544 acres on the scale of 64 inches to the mile by a small special staff working under the local Superintendent of Land Records at a cost of Rs. 388.

The survey of leased and granted areas was conducted in five districts by special establishments working on the system of piece-work. In the Kyaukpyu District 469 acres were surveyed and adequately checked. In Thatôn 44 applications for land for the cultivation of rubber and 92 for land for religious purposes and for house-building were dealt with by five surveyors. The areas desired for rubber were traversed by means of the theodolite if they exceeded 100 acres and by the plane-table if they did not, and all were brought into connection with existing permanent survey marks. They amounted in area to 7,291 acres, and the cost of their survey, Rs. 1,504, was met from the fees prepaid by the applicants.

In the Amherst District 23 applications for land were received but only in 17 cases and over an area of 1,211 acres was survey carried out, of which 1,023 acres were to be used for rubber and the rest for lemon-grass, coffee, cocoanuts, *nipa* palm, etc. The work was duly checked by the Inspectors. In the Tavoy District 78 applications for 3,715 acres in all were received and 59 dealt with. One thousand and fifty acres were surveyed, and of the remainder the traverse by theodolite of a large block of 2,400 acres applied for in order to grow cocoanuts was begun.

In the Mergui District the appointment of two temporary Inspectors was found necessary. At the beginning of the field season 9,632 acres in 307 cases awaited survey and 2,911 acres in 173 cases awaited check, and at the end of the

* *Kwins* are blocks of land of varying shapes and sizes into which agricultural land is divided for convenience of administration.

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year 3,196 acres in 61 cases were left to be surveyed and 4,631 acres in 119 cases were left to be checked. The cost amounted to Rs. 4,878 and was fully met from fees realised. Inspection, however, showed that method in conducting and supervising the work was lacking.

Settlements.

Progress of Settlements.

17. During the agricultural year ended on the 30th June 1918 three Settlement Parties were at work. The operations were carried on in the Sagaing, Magwe and Myaungmya Districts and covered a gross area of 6,091 square miles of which 343 were occupied. Soil classification and connected operations were completed in all three over a gross area of 2,147 square miles of which 814,000 acres were occupied.

The report on the third settlement of the Akyab District, which dealt with an area of 1,950 square miles and an occupied area of 736,000 acres and was completed in 1916, was submitted to the Financial Commissioner in February 1918.

A tract known as the Subyugon tract lying on the northern border of the Myingyan District, comprising an occupied area of 17,960 acres, which was transferred from the Sagaing District to the Myingyan District in 1906, but was excluded from the area dealt with in the settlement report on the Myingyan District, was settled during 1917-18 in conjunction with the settlement of the Sagaing District. The settlement report on this tract is now under the consideration of the Local Government.

The second settlement of the Sagaing District was commenced in November 1915. A period of three years had been allotted for the completion of the operations. The gross area to be dealt with comprises 1,824 square miles and the occupied area 766,000 acres. The field work of the whole district, except Sagaing Town, was completed before the close of the year of report. During the year crop selection and measurement of all staple crops was carried out over the whole area, and also the counting of palmyra palms. Soil classification and connected work was carried out during the year over an occupied area of 240,000 acres.

The second settlement of the Magwe District was commenced in November 1915. A period of three years was allotted for the completion of the operations. Owing, however, to the extent of the area involved and the complexity of the work it was found necessary to extend the period by six and a half months. The area to be dealt with comprises a gross area of 2,720 square miles of which 961,000 acres are occupied. During the year of report the area in which soil classification and connected operations were completed comprised an occupied area of 399,000 acres. The field work was very nearly completed before the close of the year.

The revision settlement of a portion of the Myaungmya District was commenced in November 1916. The area to be dealt with covers about two-thirds of the cultivated area of the district and comprises a gross area of 1,550 square miles with an occupied area of 468,000 acres. In the area to be settled is included the original settlement of a gross area of 50 square miles with an occupied area of 17,500 acres. A period of two years was originally sanctioned for the completion of the operations, but, owing to the difficult nature of the country, it was found necessary to extend the period of operations by one year. The area in which soil classification and connected work was carried on during the year of report comprised an occupied area of 175,000 acres. The operations in the area for original settlement had been completed before the beginning of the year.

Financial results and expenditure.

18. The reclassification of the area irrigated by the Shwebo Canal, which had been completed in the previous year, was sanctioned by the Local Government and was completed in May 1917. The effect of the Settlement Officer's proposals was to raise the existing classification in the case of 73,000 acres and to reduce it in the case of 26,000 acres out of a total irrigated area of 207,000 acres. The financial effect of this revision, calculated on the basis of the area assessed in

1915-16, would have been to increase the combined demand under land revenue and water rate by Rs. 1·40 lakhs, or 16·93 per cent. With a view, however, to mitigate the hardship caused by the sudden enhancement in the case of lands which had been raised by more than one class, the Settlement Officer recommended the levy of intermediate rates on these lands. He also recommended the reduction of the combined land revenue and water rate on first class land in the canal area from Rs. 8 to Rs. 7. The Settlement Officer's proposals were accepted by the Local Government with a slight modification. The increase in revenue demand at the sanctioned rates was estimated to be Rs. 75,015, or 9·07 per cent. of the old demand. New rates were also sanctioned for the small area in the Hanthawaddy District comprised in the Kadônbaw colony. The land in this area was brought under cultivation recently and no revenue had hitherto been levied.

The expenditure during the year of report of all the Settlement Parties which were at work during the year was Rs. 2,14,329. For the area in which the field work was completed the settlement operations cost Rs. 95 per square mile, or about four annas per occupied acre.

Land Records.

Area under Supplementary Survey.

19. The rural area under supplementary survey at the close of the year fell from 50,369 square miles to 50,314. Increases occurred in the Sandoway District of 5 square miles, in the Thayetmyo District, where 122 newly surveyed *kwins* were added, of 123 square miles, and in the Hanthawaddy District, where a survey of holdings in the Kadônbaw colony which marches with the Yitkangyi Fuel Reserve was carried out on the scale of 4 inches to the mile, of 37 square miles. Decreases occurred in the Hanthawaddy District of 43 square miles comprising grants of waste land, in the Amherst District of 12 square miles comprising areas in reserved forests in the Kyaikmaraw Township, and in the Minbu District of 153 square miles comprising areas which were brought under the system of fixed assessment. The total assessment amounted to Rs. 3,49,83,199, or Rs. 7,95,029 more than in the previous year. The increase was due chiefly to the introduction of new rates of revenue fixed by recent settlements in the Kyaukpyu, Sandoway, Tharrawaddy, Prome and Thayetmyo Districts and of full in place of intermediate rates in the Hanthawaddy and Lower Chindwin Districts.

The urban area under supplementary survey increased from 248 square miles to 253, chiefly in the districts of Insein, in which the municipal area of Insein Town was extended, Prome, Myaungmya and Yamèthin. The total of the land revenue, rent and land-rate assessed rose from Rs. 12,68,909 to Rs. 13,56,159, and of municipal taxes assessed by the Land Records staff from Rs. 6,86,755 to Rs. 6,96,892. The increase in the former came chiefly from the towns of Rangoon, Bassein and Meiktila, in the first of which 316 encroachments were detected and 688 new leases were issued and in the latter from those of Insein which was extended and Kawkareik in the Amherst District in which the method of taxation of areas was changed. The rolls of the town lands of Kyauksè, Yamèthin and Meiktila which were surveyed in 1914-15 were apparently not prepared during the year, probably on account of an erroneous idea that their preparation must await the results of tenure inquiries made by a Collector.

Cost of Supplementary Survey.

20. The total cost of supplementary survey incurred during the year rose from Rs. 15,56,927 to Rs. 15,78,249; of superintendence and inspection from Rs. 5,58,619 to Rs. 5,70,341; of the subordinate staff from Rs. 9,32,832 to Rs. 9,41,382 on account of promotions and changes in and increases to the cadre; and of contingencies from Rs. 65,476 to Rs. 66,526; the last increase was probably due to the purchase of masonry pillars for the protection of survey marks in the towns of Rangoon and Meiktila. The cost per hundred rupees of the revenue assessed, however, fell from Rs. 4·31 to Rs. 4·26.

Training of Officers.

21. The number of Government Survey Schools, 18, remained unchanged during the year, but one which is held alternately every three years at Tavoy and Mergui, was moved to Tavoy. These schools had 232 pupils on

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their rolls, four less than in the previous year, of whom 97, eight less than in the previous year, paid no fees. The daily average number of pupils on the rolls decreased considerably in the schools in the Kyaukpyu, Insein, Shwebo and Lower Chindwin Districts and increased considerably at Bassein.

All the available scholarships were allotted to the value of Rs 15,709. In all Rs. 40,322 were expended and Rs. 2,911 received, so that the cost of education per pupil amounted to Rs. 161, or Rs. 11 more than that in the previous year.

The Burma Educational Syndicate held in April 1918 the annual examination in Arithmetic, Revenue Law and Surveying of pupils of these schools—a class that has been gradually decreasing since 1913-14—and of other students specially recommended by Deputy Commissioners for certificates necessary for the appointments of Subordinate Revenue and Land Records Officers, at the headquarters of four districts in Upper and four in Lower Burma. The percentages of passes obtained by the pupils of the Government Survey Schools were 85, 79 and 78, and of those obtained by the private students 69, 70 and 55 in the three subjects respectiyely ; each of these figures except the second last (70) shows a very great improvement over the average of the preceding five years which may be attributed to better teaching and discipline in the Survey Schools. Inquiry showed that there was still room for improvement in the curriculum in order to make the teaching of surveying more practical and in the qualifications of the teachers.

The number of apprentices trained during the year fell from 277 to 267. The decrease was not unexpected and will probably continue until they are paid a salary during the period of their probation. One hundred and one presented themselves for examination for final proficiency certificates and 81 passed. One hundred and twenty holders of such certificates were given permanent appointments during the year and 164 temporary to fill the places of surveyors taking leave. In the appointment of Inspectors the educational qualifications prescribed in the Land Records Manual were insisted on and 16 such appointments were made during the year. The camps for training revenue surveyors in practical surveying work under skilled Indian surveyors have yielded good results in the Prome and fair results in the Myaungmya District and will be established in other districts as occasion requires.

Transfers of land.

22. The area over which agricultural statistics were collected during the year rose from 17,304,495 acres of occupied land to 17,419,212 and showed a considerable decrease in the Hanthawaddy District, due to the exclusion of the area held under waste land grants, hitherto erroneously included, and in the Minbu District, due to the exclusion of the areas which had been placed under fixed assessment. On the other hand there was an increase of about 25,000 acres in the Thayetmyo District, due to the extension of supplementary survey in part of the Allanmyo Township. Most other districts showed slight increases due to normal expansion of cultivation.

The area sold during the year fell from 548,211 acres to 439,611, but was slightly larger than that sold in 1915-16, and may be regarded as normal. The area mortgaged during the year fell from 570,905 acres to 421,452 and was considerably lower than in any of the three preceding years. The area redeemed fell from 320,265 acres to 242,136, but was more or less normal. The total area held under mortgage without possession at the close of the year rose from 2,348,828 acres to 2,517,455.

The area transferred by sale was 2·5 per cent. of the whole area covered by the statistics, or 0·7 per cent. more than in 1916-17. The area mortgaged was 2·4 per cent. of the whole, or 0·9 per cent. less than in 1916-17; and the area redeemed 1·4 per cent. of the whole, or 0·5 per cent. less than in 1916-17. The area under non-usufructuary mortgage at the end of the year rose by 7·2 per cent. and was 14·5 per cent. of the whole area covered by the statistics.

The area sold in Lower Burma fell from 5·4 to 4·2 per cent. of the whole occupied area, but in Upper Burma it amounted only to 0·5 per cent. The area mortgaged in Lower Burma fell from 6 per cent. to 4·3, and the total area under mortgage at the end of the year without possession rose from 24·4 per

cent. to 25·9. The area mortgaged in Upper Burma was 0·1 per cent. and the total area under mortgage without possession 0·8 per cent. of the whole area.

The total value of the land sold during the year fell from Rs. 3,33·27 lakhs to Rs. 2,75·30 lakhs and that for which the land was mortgaged from Rs. 2,32·95 lakhs to Rs. 1,73·63 lakhs. The average value of the land sold rose from Rs. 61 per acre to Rs. 63 and the average value for which land was mortgaged remained the same, Rs. 41.

Of the area sold 91 per cent. and of the area mortgaged without possession 98 per cent. was in Lower Burma. All Lower Burma districts except those of Sandoway and Mergui reported decreased land sales. The Ma-ubin District with 16,661 acres showed the largest decrease, but 6 other districts reported decreases of over 7,500 acres. All Lower Burma districts, except those of Kyaukpyu and Pegu, showed a decrease in the area mortgaged, those of Myaungmya and Ma-ubin showing decreases of over 20,000 acres and those of Hanthawaddy, Tharrawaddy, Bassein, Pyapôn and Thatôn decreases of over 10,000 acres. The area redeemed showed a decrease in all except four districts, the most noticeable decreases being 20,883 acres in the Pyapôn and 14,076 acres in the Myaungmya District. Of the districts in which sales of over 20,000 acres were recorded, those of Akyab, Insein, Tharrawaddy and Pyapôn show decreases of Rs. 5 to Rs. 8 per acre in value. The only district which showed a marked increase was that of Amherst, in which the average value per acre, which last year rose from Rs. 51 to Rs. 71, again increased to Rs. 84. The variations from the previous year in mortgage values were slight, the only variation worthy of note in the more important districts being increases of Rs. 12 per acre in the Prome and Rs. 10 in the Amherst District. In Upper Burma only three districts, those of Mandalay with 7,866 acres, Kyauksè with 5,063 acres and Yamèthin with 5,977 acres reported sales of over 5,000 acres. Several districts showed an increase on the total area mortgaged, but only two, Kyauksè with 11,000 acres and Yamèthin with 21,724 acres, had an area of over 10,000 acres mortgaged without possession at the end of the year. Of the more important districts, those of Pakôkku, Lower Chindwin and Meiktila showed increases in sale values of over Rs. 10 per acre, and those of Kyauksè, Yamèthin, and Myingyan increases of between Rs. 5 and Rs. 10. The Minbu District alone showed a marked decrease of Rs. 19.

In Lower Burma the important factors influencing transactions in land were the general tightness of the money market and the consequent contraction of the credit of the cultivators, the fall in the price of rice and the deadness of the market during the earlier months of the year, owing to uncertainty with regard to freight. As capital was scarce, *bonâ fide* sales between agriculturists were rare, and the same cause operated to prevent the money-lending classes and capitalists from investing in or advancing money on land. Apart from this the fall in the price of rice caused land to lose favour as an investment, and only land under well-established cultivation or with unassailable title was accepted for sale or mortgage. In some districts a considerable number of the sales recorded were really foreclosures of previously existing mortgages. The money-lending classes had to replace the capital which they had lost in speculation in rice by calling in existing loans, and, on default of payment, foreclosed. In the circumstances it was inevitable that there should be a decrease in the area mortgaged during the year. In many cases where land was lightly encumbered the original mortgages were redeemed and the land immediately remortgaged or sold outright for larger amounts, the mortgagor obtaining the use of the difference. It is thus difficult to say what proportion of the area redeemed represented true redemption, that is the resumption of permanent unencumbered possession by the original owner. The average value of land sold showed little variation, but in several districts the statistics included a larger proportion of land of good quality. Generally speaking, so far as can be judged from the statistics of sale and mortgage, though the number of the smaller cultivators who had during the past two or three years been compelled to sell or mortgage their lands undoubtedly increased as a result of the war, still on the whole the cultivator in Lower Burma was less adversely affected by the tightness of money, the contraction of credit, and the difficulty of disposing of his produce than might have been expected. In

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Upper Burma with good harvests and high prices the cultivator was during the year of report in a fairly strong condition which is reflected in the decreased number of sales. The high prices obtained for white beans in the previous year encouraged some cultivators to mortgage their lands in order to obtain capital for speculation. The total area under non-usufructuary mortgage in Upper Burma is, however, so small that it is difficult to form any general conclusion.

Waste Lands.

Grants and leases for cultivation.

23. The area of land granted or leased for cultivation during the year fell from 7,406 acres to 6,260, of which 3,873 were granted for rubber cultivation; principally in the Insein, Toungoo, Thatôn, Amherst and Mergui Districts. Preliminary steps were taken during the year towards the reservation of suitable areas for large estates in the more important rubber growing districts and an officer of the Forest Department was placed on special duty for the detailed selection of such areas in the Mergui, Tavoy and Amherst Districts. The low price of rubber and the shortage of capital under war conditions militated against the formation of large estates in the year of report and the only considerable areas granted in single cases were one of 691 acres in the Insein and two of 200 acres each in the Thatôn District. The desirability of reserving suitable land for such estates, which alone are capable of being worked on commercially sound principles, was however kept in view and applications for small areas were freely rejected where they were likely to interfere with the ultimate formation of large estates. Thus in the Tavoy District, 38 applications were rejected, two only, covering an area of 41 acres, being granted. Grants under the new rules of 1916 were substituted for old grants and leases in respect of a total area of 3,096 acres in the Mergui District. The royalty of two per cent. on the net value of rubber produced in the Province yielded Rs. 42,770 (classed as forest revenue) of which Rs. 30,574 were refunded within the year as having been paid on rubber produced from land granted or leased under the old rules on which the period of exemption had not yet expired. The sum collected in the previous year was Rs. 49,947; the decrease was entirely due to the fall in the net value from an average of fifteen annas two pies per pound in 1916-17 to an average of ten annas ten pies in the year of report.

Grants or leases for ordinary rice cultivation continued to be issued only in special circumstances rendering the conferment of title desirable. Such circumstances are commonly present in the Kyaukpyu District, owing to the need for expenditure on protection of the land from the sea, and 672 acres in all were granted there. In the Amherst District 172 acres in four cases were granted for the cultivation of lemon grass and 54 acres for experimental cultivation of tea and coffee. A grant of 37 acres was made in the Thatôn District for the cultivation of cocoanuts. The 248 acres leased in the Minbu District were almost all areas irrigated by the Môn Canal which were leased afresh after the cancellation for breach of conditions of the leases originally issued. Leases continued to be issued in the special lease areas of the Hanthawaddy and Insein Districts.

Revenue-free grants of land and assignments of land revenue.

24. The area granted free of revenue for the erection of religious edifices, such as monasteries, shrines, pagodas, etc., rose from 114 acres to 122. The area granted free of revenue for public purposes fell from 33 acres to 22. The largest areas granted were one of 8·73 acres in the Insein District in connection with the protection of the Rangoon water-supply, and one of 3·27 acres in the Meiktila District for a tank. Small areas were granted for mission schools in the Henzada and Minbu Districts. The rest was made up of areas of a few acres in each case granted for burial grounds, and of smaller areas for the construction of rest-houses or wells.

The areas of land allotted as an appanage of the office of headman fell from 288 acres to 234. One allotment of 25 acres was made in the Insein, and one of 19 acres in the Ma-ubin District. The others averaged about 10 acres in area.

The addition to the total value of assignments of land revenue fell from Rs. 691 to Rs. 539. There were no specially large assignments. Some areas were exempted from assessment to revenue, without being granted, in the Hanthawaddy, Ma-ubin, Pyapôn and Toungoo Districts. The total value of the assignments of land revenue at the end of the year fell from Rs. 58,340 to Rs. 50,663. The decrease, in spite of the increase in area, is due to a recalculation of values on revision of revenue rates and the correction of certain mistakes.

Except for the resumption of one grant in Insein in default of payment of revenue, which was, however, quashed on appeal after the end of the year, there was no change in the number of grants under either the rules of 1839-41 or those of 1865; nor was any change of assessment made during the year.

Government Estates and Wards' Estates.

25 The character of the land tenures in Burma is explained in paragraph 39 *et seq.* of the *Report on the Administration of Burma* for the year 1911-12. Apart from Government lands of the kind therein described, there are no Government estates in the special sense of particular cultivated areas managed by Government after the fashion of a private landlord. There are no wards' estates.

Revenue and Rent-paying Classes.

Area held by agriculturists.

26. Of the total occupied area for which statistics are recorded 14,659,168 acres were occupied by agriculturists and 2,760,044 by non-agriculturists. The area occupied by agriculturists showed an increase of 53,456 acres and the area occupied by non-agriculturists of 61,261 acres over that of the previous year. The area held by resident non-agriculturists increased from 834,574 acres to 850,335 and by non-resident non-agriculturists from 1,864,209 to 1,909,709 acres. The percentage of the whole area occupied by agriculturists fell from 85·4 in 1915-16 and 84·4 in 1916-17 to 84·2.

In Lower Burma, including the Thayetmyo District, agriculturists occupied 7,295,978 acres, or 77 per cent., and non-agriculturists 2,191,167 acres, or 23 per cent. of the whole occupied area, percentages identical with those of the previous year. Of the more important districts, those of Akyab, Insein, Prome, Bassein, Myaungmya, Ma-ubin, Toungoo and Thatôn showed a slight decrease in the proportion of the area held by agriculturists, but in none of them did the decrease exceed 2 per cent. Non-agriculturists now hold 42 per cent. of the whole occupied area in the Hanthawaddy, 34 per cent. in the Pyapôn, 33 per cent. in the Insein and Ma-ubin, and 30 per cent. in the Toungoo District. The percentage of the total area held by non-resident non-agriculturists was 6. The percentage was highest in the Hanthawaddy (33 per cent.) and exceeded 20 per cent. in the Insein, Pegu and Pyapôn Districts.

In Upper Burma, excluding the Thayetmyo District, agriculturists occupied 7,363,190 acres, or 92·8 per cent., and non-agriculturists 568,877 acres, or 7·2 per cent., percentages identical with those of the previous year. The percentage of area held by non-agriculturists exceeded 10 per cent. only in the Minbu and the Upper and Lower Chindwin Districts.

Tenancies.

27. The area let at full rents rose from 3,351,219 acres to 3,514,176 of which 3,412,214, or 97 per cent., were in Lower Burma. The largest increases occurred in the Bassein (42,174 acres) and Myaungmya (34,727 acres) Districts. Among the others each of the Akyab, Insein, Hanthawaddy, Ma-ubin Pyapôn and Thatôn Districts showed an increase of over 10,000 acres. In the Bassein and some other districts the increase was due almost wholly to the number of small cultivators who lost their holdings owing to the financial stress. The area let at full rents was highest in the Hanthawaddy (54 per cent.) and Pegu (50 per cent.) Districts. It exceeded 40 per cent. in the Insein, Tharrawaddy, Myaungmya and Pyapôn

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Districts and exceeded 30 per cent. in the Akyab, Bassein and Ma-ubin Districts. The relations between landlords and tenants were, on the whole, satisfactory, and, though assessment rates were raised in parts of the Tharrawaddy, Prome, and Henzada Districts during the year, tenants did not appear to have been asked to pay higher rents. There was little or no evidence of oppression or rack-renting by landlords.

The total value of rent paid fell from Rs. 4,31 lakhs to Rs. 3,44 lakhs. Of the four districts in which the rent roll was the largest the value of rent received fell in the Hanthawaddy District from Rs. 66 lakhs to Rs. 54 lakhs, in the Pegu District from Rs. 50 lakhs to Rs. 40 lakhs, in the Myaungmya District from Rs. 47 lakhs to Rs. 37 lakhs and in the Pyapôn District from Rs. 44 lakhs to Rs. 35 lakhs; and almost every district in Lower Burma showed a decrease in the average value of rent per acre. This decrease was mainly due to the decline in price at which rents paid in kind, which form the bulk of the rents, were commuted.

The number of tenants who had rented the same land continuously for five years or more fell from 30,673 to 29,812 and formed, as in the previous year, fourteen per cent. of the total number.

CHAPTER III.

PROTECTION.

REFERENCES—

Report on the Police Administration of Burma for the year 1917.

Report on the Rangoon Town Police for the year 1917.

Resolution on the Reports on Village Administration in Burma for the year 1917.

Returns showing the measures adopted for the extermination of Wild Animals and Poisonous Snakes in Burma for the year 1917.

Reports on the Administration of Criminal Justice in Burma for the year 1917.

Report on the Prison Administration of Burma for the year 1917.

Reports on the Administration of Civil Justice in Burma for the year 1917.

Note on the Working of the Registration Department in Burma for the year 1917.

Report on the Working of the Indian Companies Act in Burma for the year 1917-18.

Report on the Working of the Rangoon Municipality for the year 1917-18.

Resolution reviewing the Reports on the Working of Municipal Committees in Burma (except Rangoon) during the year 1917-18.

Administration Report of the Public Works Department, Burma, Buildings and Roads Branch, for the year 1917-18.

Administration Report of the Commissioners for the Port of Rangoon for the year 1917-18.

Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the official year 1917-18, Part III, Shipping.

Report on the Maritime Trade and Customs Administration of Burma for the official year 1917-18.

Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volume II.

Annual Statement of Coasting Trade and Navigation of British India.

Statistical Abstract for British India, Volumes I, III and IV.

Report on Government Steamers, Vessels and Launches in Burma for the year 1917-18.

Legislative Authority.

The history and constitution of the Legislative Authority of the Province are described in paragraphs 103 to 106 inclusive of the *Report on the Administration of Burma* for the year 1911-12.

Course of Legislation.

Work of Legislative Council.

28. The three Bills referred to in the last year's report, *viz.* the Burma Towns Amendment Bill, the Rangoon Hackney Carriages Bill, and the Burma Excise Bill, passed into law as Burma Acts Nos. III, IV and V of 1917, respectively, during the year of report. Two Bills were introduced into the Council during the year, *viz.* the Burma Ghee Adulteration Bill, 1917, and the Burma Oilfields Bill, 1918. Of these two Bills the Burma Ghee Adulteration Bill became law as Burma Act No. VI of 1917 during the year, but the other Bill did not become law until after the close of the year of report.

The Burma Towns Amendment Act (No. III of 1917) amends the Burma Towns Act, 1907, by adding a new section similar to section 31B of the Rangoon Police Act, 1899, which empowers the Deputy Commissioner to prohibit the carrying of *das* (long knives), bludgeons, loaded-sticks, hunting crops, clasp-knives, and other offensive weapons in any public place in all towns to which the Burma Towns Act applies. The refusal to deliver up on demand such offensive instruments carried in a public place has been made an offence and provision has also been made for the confiscation of such instruments upon conviction. The Act also amends section 6 of the Burma Towns Act so as to make it compulsory for headmen of wards to assist the police in the investigation of the new offence.

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The Rangoon Hackney Carriages Act (No. IV of 1917) repeals and re-enacts the Act of 1912 with necessary amendments so as to provide for the effective control of rickshaws and rickshaw-pullers. The number of rickshaws and rickshaw-pullers has increased to such an extent that it has become imperative to provide an adequate system for their regulation. The Act also makes it a punishable offence for any person fraudulently to wear a driver's badge when not entitled to do so.

The Burma Excise Act (No. V of 1917) was enacted to consolidate and amend the Excise Law in Burma. Hitherto excise matters in this Province had been controlled by the Excise Act, 1896, and the Excise (Spirit) Act of 1863. The former of these two Acts dealt generally with liquors and drugs and the latter Act controlled the use of denatured spirits used in arts and manufacture. Both Acts were framed for India as a whole and without reference to any special conditions existing in Burma. There had been marked developments in Excise administration and it was found that the provisions of these Acts were inadequate and unsuited to existing conditions. In 1905, therefore, the Government of India appointed a Committee to investigate the Excise administration of each Province and to suggest such alterations in the law to suit local conditions as might be desirable. The Committee after a full investigation considered that the Excise Act, 1896, should be completely repealed and Local Acts should be framed on the lines indicated by the Committee so that any conditions peculiar to any particular Province could be dealt with. The present Act is the outcome of the Committee's decisions and is based on the principles laid down by them, but with considerable modifications. Wherever it has been found possible the power to make rules has been taken, so that unforeseen circumstances may be dealt with as they arise.

The Burma Ghee Adulteration Act (No. VI of 1917) is a measure enacted to prevent the evils resulting from widespread adulteration of *ghee* (clarified butter). The Act makes provision for the adoption of more stringent measures to ensure the purity of the article and for penalizing the manufacture, storage and sale of *ghee* which is not derived exclusively from milk or which is adulterated, unwholesome or unfit for human food.

General Acts affecting Burma.

29. The undermentioned General Acts affecting Burma were passed by the Governor-General in Council during the year :—

General Acts of 1917.

XV.—The Indian Registration (Amendment) Act, 1917.
XVII.—The Government Savings Banks (Amendment) Act, 1917.
XVIII.—The Post Office Cash Certificates Act, 1917.
XIX.—The Indian Paper Currency (Amendment) Act, 1917.
XX.—The Indian Transfer of Ships Restriction Act, 1917.
XXI.—The Indian Trust (Amendment) Act, 1917.
XXII.—The Gold (Import) Act, 1917.
XXIV.—The Repealing and Amending Act, 1917.

General Acts of 1918.

I.—The Indian Forest (Amendment) Act, 1918.
II.—The Cinematograph Act, 1918.
III.—The Indigo Cess Act, 1918.
IV.—The Indian Coinage (Amendment) Act, 1918.
VI.—The Indian Paper Currency (Amendment) Act, 1918.
VII.—The Indian Income-tax Act, 1918.
VIII.—The Indian Defence Force (Amendment) Act, 1918.
IX.—The Indian Soldiers (Litigation) Act, 1918.
X.—The Usurious Loans Act, 1918.
XI.—The Indian Army (Amendment) Act, 1918.
XII.—The Indian Companies Restriction Act, 1918.

Ordinances of the Governor-General.

The undermentioned Ordinances affecting Burma were made and promulgated by the Governor-General under section 72 of the Government of India Act, 1915.

Ordinances of 1917.

II.—The Indian Paper Currency (Amendment) Ordinance, 1917.
III.—The Gold (Import) Ordinance, 1917.
IV.—The Silver (Import) Ordinance, 1917.

All these Acts and Ordinances came fully into force, with the exception of three Acts, *viz.* the Indian Income-tax Act, 1918, the Indian Coinage (Amendment) Act, 1918, and the Indian Army (Amendment) Act, 1918. The Indian Income-tax Act, 1918, did not come into operation until the 1st of April 1918, *i.e.*, just after the close of the year of report. The Indian Coinage (Amendment) Act, 1918, and the Indian Army (Amendment) Act, 1918, were not brought into operation in Burma during the year by any notification of the Governor-General in Council. Ordinances Nos. II and III of 1917 were repealed and re-enacted in the same year by Acts Nos. XIX and XXII of 1917, respectively.

Regulations affecting Burma.

30. Two Regulations affecting Burma, namely, the Arakan Hills' Civil Justice (Amendment) Regulation, 1917, and the Chin Hills (Amendment) Regulation, 1917, were enacted during the year of report. The former Regulation amends the Arakan Hills Civil Justice Regulation, 1874, and the latter amends the Chin Hills Regulation, 1896.

Extension of Enactments to Shan States.

31. The Sea Customs Act, 1878, was extended to the Northern and Southern Shan States.

Police.

Civil Police: strength, recruitment and cost.

32. Owing to the addition of 6 Sub-Inspectors, 7 Head Constables and 40 Constables, the sanctioned strength of the civil police force, excluding gazetted officers and members of the Rangoon Town Police, was 1,369 officers and 14,425 men, but the actual strength was 1,295 officers and 13,561 men. The deficiency of 74 officers and 864 men was much greater than that of the previous year, 42 officers and 590 men. The shortage of officers was mainly due to the fact that there were only 41 cadet Sub-Inspectors of Police at the Provincial Training School at the close of the year, though 90 appointments were sanctioned. The shortage of men was very marked in Pegu, Mandalay, Mergui, Amherst, Pyapôn and Prome, but in Bassein there was an excess of one. In some districts the pay was said to be too small to attract recruits of a good type; in others the increase in the cost of living was said to have improved recruiting. Many gazetted officers were absent on deputation to the Army or employed in the Military Police (in order to allow Military Officers to return to their regiments) and there were losses through sickness, retirement, etc., so that the shortage of gazetted officers became acute during the year.

The cost of the police payable from Imperial and Provincial revenues fell from Rs. 66·94 lakhs in 1916-17 to Rs. 64·36 lakhs in 1917-18. The decrease was due chiefly to the shortage of Imperial Police Officers and the stoppage of the grant of the flour allowance to Indians. There was a considerable fall in expenditure under the heads travelling allowance, petty construction and repairs, rewards to informers, railway warrants, rents, etc., and arms and accoutrements. The cost of police paid from other than Imperial and Provincial revenues rose from Rs. 1·83 lakhs to Rs. 1·92 lakhs and of the additional police employed under section 15, Police Act, from Rs. 2·46 lakhs to Rs. 2·53 lakhs.

Conduct, education and training.

33. The numbers of officers and men who were dismissed or removed departmentally were 11 and 248 respectively. Magisterial punishments were inflicted on 8 officers and 282 men, of whom 4 officers and 244 men were in conse-

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quence dismissed. The total number of officers who were dismissed or removed rose therefore from 14 to 15 and of men fell from 523 to 492. The number of other punishments inflicted on officers fell from 293 to 203 and on men from 1,664 to 1,618. The most common offences were neglect of duty, disobedience of orders and absence without leave, and there was again an increase in punishments in the Amherst District. The percentage of all punishments to the actual strength of officers and men fell from 23 to 17 and from 17 to 16, respectively, and the proportion inflicted on officers who had passed out of the Provincial Training School was much smaller than that of those inflicted on officers promoted from the ranks. The number of special promotions for good work fell from 55 to 45, of which the Myaungmya District supplied 17, but there was a marked increase in other rewards from 2,734 to 3,129.

The number of cases of violence on the part of the police to persons rose from 8 to 10; of wrongful confinement fell from 5 to 3; and of wrongful behaviour rose from 2 to 5; of these 18 cases 6, including the worst, a case of extortion with brutal violence on a village official, occurred in the Amherst District; and, in all 18, three Sub-Inspectors, 6 Head Constables and 20 Constables were concerned and punished. On the whole, however, the conduct of the force was good and it performed several additional duties in connection with the war with credit. The King's Police medal was granted to 6 officers—one more than in the previous year.

No Assistant or Deputy Superintendents of Police were under training during the year. Two cadet Inspectors and 43 Sub-Inspectors were posted to the Training School at Mandalay. The results of the examination were not very good, owing to the reduction of the teaching staff. The number of literate subordinate officers and men was 12,968 out of a total of 14,856, or 87 per cent., one per cent. more than in the previous year. The number of constables, other than recruits, trained in district depôts, rose from 1,778, of whom 90 per cent. qualified, to 2,238, of whom 94 per cent. qualified; and of recruits fell from 2,348, of whom 1,452 passed to 2,212, of whom 1,290 passed; the number of casualties which occurred among the recruits before the completion of the course of training rose from 367 to 443 and the number of them discharged for failure to pass fell from 18 to 9. The number of officers who underwent the annual course of revolver practice rose from 1,059 to 1,161 and the figure of merit from 38 to 44—a result probably due to the formation of revolver clubs. The number of trained constables and recruits who underwent the annual course of musketry rose from 8,964 to 9,964 and fell from 1,512 to 1,502, respectively, and the figure of merit rose from 63 to 64. Classes of instruction in First Aid to the Injured were held in all districts but four, and the number of officers and men who gained the badge of the St. John's Ambulance Association increased from 218 to 315. The good fellowship of the force was again fostered by the holding of a football competition for all district police teams.

Buildings.

34. A quarter of a lakh of rupees was allotted in the police budget estimate for petty construction and repairs and an equal sum was afterwards added. In the budget of the Public Works Department the allotment was Rs. 3·43 lakhs. The accommodation of the force was still insufficient and unsuitable and Rs. 76,403 was spent during the financial year on hiring quarters for the men for whom no Government quarters had been provided, or Rs. 6,157 less than in the previous year. Permanent quarters were completed at various posts in several districts. The experiment of erecting aerobic filter latrines did not prove very successful—no doubt for lack of careful attention and supervision.

Crime.

35. The number of true cognizable cases dealt with by the police or magistrates or both fell from 47,904, which constituted a record, to 45,657, but the decrease occurred chiefly in minor offences against property and in other minor offences such as public nuisances and offences under special and local laws. There was indeed a very slight increase in serious crime. Cases of murder increased from 487 to 508 and of culpable homicide from 93 to 109; but attempts to murder decreased from 79 to 57; cases of grievous hurt rose from 1,448 to 1,504 and of kidnapping, abduction, etc., from 198 to 240; dacoities including preparations

and assemblies for dacoity, fell from 215 to 194, but robberies rose from 488 to 534. There was a great decline in cases both of serious mischief and of killing, poisoning or maiming animals, but cases of lurking house-trespass and house-breaking increased from 4,758 to 4,836. Among minor offences against property thefts of cattle fell from 3,348 to 2,952 and ordinary thefts from 12,538 to 11,821. The decrease in cases of vagrancy and bad livelihood under sections 109 and 110, Criminal Procedure Code, from 1,867 to 1,325 was also remarkable. The general recruitment for the Army and the encouragement of investment in the war loan deeply affected the people during the year. The failure to reduce the volume of serious crime was attributed partly to the shortage in gazetted officers of the police force and its participation in war work of various kinds; and the extensive use of the preventive sections of the Criminal Procedure Code in the previous year and the cheapness of rice were suggested as reasons for the decrease in the number of minor offences.

Working of the Police.

36. Excluding cases shown as false, mistaken or pending the number of cases finally dealt with by the police fell from 40,262 to 38,426 and the percentage of convictions obtained from 66 to 65. Excluding minor offences, such as public nuisances and offences against special and local laws, cases compounded, etc., the number of cases dealt with fell from 26,915, of which 56 per cent. were convicted, to 26,172, of which 55 per cent. were convicted. Detection was good in the Myaungmya, Prome and Tharrawaddy Districts. Of the cases except minor cases sent up for trial 84 per cent. were convicted, the same as in the previous year.

The number of persons dealt with under all classes of offences fell from 56,412 to 53,987; of persons brought to trial from 52,748 to 50,707; and of those convicted from 34,246 to 32,906. The number of persons sent up for trial for offences other than public nuisances, offences against special and local laws, etc., fell from 34,669 to 33,712, but the percentage of convictions rose from 56 to 59. The number of cases in which investigation was refused fell from 2,209, out of a total of 62,730 cognizable cases reported, to 1,894 out of 59,699.

The number of cases of violent crime, which fell steadily from 1,507 in 1912 to 1,296 in 1914 and rose steadily to 1,469 in 1916, rose farther to 1,503 in the year of report. Murders and robberies and house-breakings increased and dacoities decreased. There was an increase of 87 cases in Upper Burma and a decrease of 53 in Lower Burma. The number of violent crimes in which fireams were used rose from 125 to 134, of which 102 were dacoities. In the Thayetmyo District 15 such crimes were committed by one gang, but the dispersal of similar gangs in Amherst reduced the number in that district from 50 in 1915 to 21 in 1916 and 7 in the year of report. The number of true cases of violent crime dealt with by the police rose from 1,464 to 1,491; of those sent up for trial from 914 to 944; and the percentage of convictions from 64 to 67. In cases of murder the proportions of convictions to true cases dealt with and sent up for trial were 31 and 55 per cent., respectively; in the previous year the results were 31 and 54; in cases of dacoity the proportion of convictions to true cases dealt with rose from 27 per cent. to 32; of robbery from 44 to 45; of serious house-breaking (sections 458—460, Indian Penal Code) from 36 to 39; of ordinary house-breaking from 35 to 37; of cattle-theft from 44 to 46; and of ordinary theft remained the same, 49. The value of cattle stolen fell from Rs. 3·32 lakhs to Rs. 3·07 lakhs and of stolen cattle recovered from Rs. 2·09 lakhs to Rs. 2·02 lakhs. Good work was done by reorganization of night patrols in Mandalay.

Important incidents.

37. In the Amherst District premeditated murders were extremely common. In one case a man hired a ruffian to shoot a man who had abused him. In another case a boy of 18 threw an enemy into a creek after stabbing him. In a third case a Talaing after waiting three years shot an enemy at a festival. The deceased's father and brother had both been murdered previously and he himself had been shot at. The commonest motives for murder were reported to be revenge, lust and drink.

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One of the outstanding cases of the year was the murder of two Sub-Inspectors of Excise in a village in the Thatôn District. They had visited the village to search for opium and had found some in the possession of the licensee of the liquor shop, whom they told to close his shop, as he was to be arrested. There was a festival going on at the time and this order of the Sub-Inspectors was strongly resented by the villagers. A quarrel ensued and the villagers attacked the two Sub-Inspectors and beat them to death. A number of men were tried but were acquitted. The village was fined and a force of additional police was quartered in the tract.

In Tharrawaddy a woman was raped and brutally murdered. In the same district some villagers noticed two armed men whom they suspected to be outlaws. The headman's nephew, in the absence of the headman, took his gun, called out the villagers and surrounded the strangers, whereupon one of them produced a double-barrelled gun and fired killing one of the villagers. They then effected their escape. On receipt of information the Deputy Inspector-General of Police, Eastern Range, who happened to be in the Tharrawaddy District on tour, the Deputy Commissioner, the Superintendent of Police and other officers proceeded to the village and organized a search. Some 800 villagers were collected and a drive was organized with the result that the two men were discovered and shot by Karen Military Police who were on patrol duty in the vicinity. It was ascertained that one of the men was the notorious Po Dan, an outlaw, for the arrest of whom a reward of Rs. 1,000 had been offered, and the other was Po Kun, a well-known criminal of the Insein District. One double-barrelled gun was recovered. Two headmen were also murdered in this district.

A particularly daring murder was committed in the town of Prome. The victim was a woman who was a plaintiff in an inheritance suit of some Rs. 80,000. She was killed at about 7 p.m. while lying near the door of her house in one of the biggest and most crowded streets. The street was fairly well lighted and there were many houses in the vicinity and yet not a single individual came forward to give evidence. Although the police were aware of the identity of the person responsible for the murder they were powerless to bring the case to light.

In the Bassein District, a beat constable was murdered while on his beat. The murder occurred in a large village-tract and was probably due to the constable having interfered with a gambling party. The headman and his son were implicated and evidence was suppressed, so that although four persons were sent up for trial all were discharged. The village was heavily fined and the headman was dismissed.

Perhaps the most brutal murder of those reported was committed by a man who had two step-children. One morning in the absence of the mother one of the children cried persistently and refused to be pacified. The step-father, apparently enraged at the noise, took the child down to the stream and having first submerged him was seen by a passer-by to batter him to death against a tree. The accused was sentenced to death.

In Sagaing there was a remarkable case in which a woman, who was believed to be possessed by an evil spirit, was slowly beaten to death in the presence of her relatives by a man, who professed to be a witch-doctor, and three others. The witch-doctor and his assistants were sent up for trial and convicted. In the same district two men, who had been drinking, met a girl aged 13 years in the jungle. One of them, who had a grudge against her father, assisted by his companion seized and raped her. After this the girl's throat was cut. The principal accused was acquitted, but his accomplice was sentenced to transportation for life. A similar crime was committed on a girl of 8 years of age in the Upper Chindwin District. In the Hanthawaddy District a woman remonstrated with her husband for being lazy, so he killed her, his two step-sons and his brother-in-law.

Good work was done in the Insein District, where a large gang of dacoits operating in the Tharrawaddy and Insein Districts and known as the Chaungzauk gang was broken up. A number of these men were shot by the police and the rest were arrested and prosecuted under section 400, Indian Penal Code. The case was pending trial at the close of the year, but ended in conviction. The

effect of breaking up this gang was apparent, as no cases of dacoity were reported in the district during the rest of the year.

The Thayetmyo District was troubled by a gang of dacoits under the leadership of Nga Kala. This gang committed three armed dacoities, four armed robberies and one attempt to murder. One of the gang was captured by the police, but was rescued by his comrades from an unarmed escort. Finally three of the gang were arrested and convicted and Nga Kala, who had been wounded by the Township Officer, Minhla, was murdered by his own confederates. Two of the gang remained at large and formed another band operating in the Minbu and Thayetmyo Districts. This gang like that of Nga Kala invariably operated in the day time.

Another gang known as the Po Kyan-Tun Wa gang, which is said to number some 50 members, although nothing like this number take part in each crime, committed a number of daring dacoities on the borders of the Thayetmyo and Prome Districts. Apparently, this gang also operates in the day time and it has been found from observations in different cases that they make long marches, usually by night, to reach their objectives. In one case a section of this gang, 22 strong, armed with two guns entered a village in the Prome District at 7 in the morning. Information was given to a Military Police Mounted patrol in camp some 5 miles distant. The patrol engaged the dacoits and killed two of them outright.

In August it was found necessary to take action against a number of outlaws who were committing dacoities on the borders of the Toungoo, Yamèthin, Thayetmyo and Prome Districts and a conference of Police Officers was held at Toungoo. A plan of operations was decided on and Inspector Maung Po Kyin of the Toungoo District, with a small force of Civil and Military Police, succeeded in locating the outlaws in a hut in the jungle and in wounding and arresting one of them. One gun, a number of spears and some 50 items of dacoited property were secured. The whole gang, with the exception of one man, was accounted for before the end of the month. Of the 18 men who were known to belong to the gang two were killed, one was wounded and the remainder were arrested and sent up for trial under different charges.

The account of operations against dacoits in the Prome District was very interesting. In one case at Myaukkôngyi, 11 men belonging to a well-known gang, armed with a locally-made gun, attacked the house of a villager. The inmates armed only with knives made a gallant fight and routed the dacoits, one of whom was killed. Shortly before he died he made a confession which led to the capture of eight of the gang. Six were sent up for trial and were convicted. At Laithit the police obtained early information of a projected dacoity and lay in wait for the gang. Three out of eight dacoits were shot and a fourth, who was wounded, was murdered by his companions. Another dacoity which was successfully dealt with occurred at Nyaungbintha, where seven men from Tharrawaddy and four from Prome committed a dacoity. They took with them two gun-barrels made out of piping, for which stocks were made in the jungle shortly before the attack. Seven men were convicted, but two of them were released on appeal. A large number of locally-made guns were said to have been used in the Prome District, the powder being provided by crushing the heads of safety matches. In the same district at Natsingôn excellent use was made of the gun issued to the headman for protection. Eleven men armed with three guns attacked the village. The villagers resisted and fired on them killing one and wounding another, who was subsequently arrested, and this led to the recovery of two of the guns. In this case the only criminal then known to the police as such was the one in the locality who arranged its details. None of the others had been convicted of a criminal offence, except one who had been sentenced for a theft of rice.

In the Tenasserim Division the most alarming feature was the gang dacoity committed on the Siamese frontier (Amherst District) and, in view of similar raids in the Tavoy District, it was proposed that the formal co-operation of the Siamese authorities should be invoked. In the Mergui District there was a case of piracy. Four Chinamen were trading in a boat between Mergui and Victoria Point, when they were attacked by eleven Malays, who fired at and wounded the

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steersman. The remainder jumped into a small canoe and escaped. The dacoited boat was found scuttled and a portion of the dacoited property was recovered. The villagers on the surrounding islands, who denied all knowledge of the affair, were dealt with under the Village Act.

In the Katha District, where there was an increase in dacoities and robberies, the majority of cases were committed by a small band under the leadership of an outlaw named Nga Mo. Once he committed a robbery assisted by his two wives. They were followed and traced to thick jungle where they were surrounded. A villager approached Nga Mo grappled with him single-handed and received two severe wounds. A third blow, however, wounded one of the wives of Nga Mo, who afterwards died in consequence. Nga Mo and his other wife then made good their escape. A number of his relatives were deported and some persons connected with this gang were proceeded against under the preventive sections. This has had a temporary effect, as, for the time being, Nga Mo has disappeared Efforts to capture him have not been abandoned.

In Henzada Nga Tha Hla and his band of dacoits from round Neikban and Aingthabyu procured a number of firearms and committed several dacoities. In October, however, their firearms and ammunition with the exception of one revolver were recovered. Later Tha Hla and his two lieutenants Shwe Lun and Kan Dun were deported; since then there has been a considerable reduction in crime.

Good work was done in the Myaungmya District in breaking up a gang addicted to river robberies. A small robbery was committed at Ywathit and enquiries disclosed that a gang from Bassein had been at work. The police followed them up, wounded and captured one of the gang and arrested the remainder. One man died in jail and the others received long sentences. Several cases of theft were also traced to this gang. This district is fortunate in having four motor boats to patrol the rivers.

In Prome a plucky defence was offered by a man who was attacked by three robbers. He stabbed one of them with his own dagger and the remaining two, to prevent identification, cut off the head of their wounded companion and threw it into the river. The corpse, however, was identified by the finger prints and was found to be that of an old offender.

In Thatôn three men armed with a revolver entered the house of a villager. The villagers attacked them and succeeded in killing two of the robbers. The third was arrested and sentenced to transportation for life. The revolver was recovered and was found to be a Government weapon which had been stolen from a Sub-Inspector at Mopalin in the same district. In Pakokku, a gang known as the Laungshe gang, armed with two muzzle loading guns, were responsible for a number of cases. Four of the gang were arrested and convicted during the year.

Rules were framed by the Local Government under the Criminal Tribes Act, which will, it is hoped, give more control over habitual criminals.

Offences under Special Acts.

38. The number of true cases dealt with under the Excise Act rose from 6,575 to 6,652 and of those instituted by the police from 1,855 to 1,905, the number of cases tried rose from 6,516 to 6,642 and the percentage of convictions, 88, remained the same. The number of persons dealt with rose from 8,005 to 8,276; of those tried from 7,871 to 8,237; and the percentage of convictions, 78, remained the same. Seven thousand tolas (50 viss or 180 lbs.) of ganja were obtained in one seizure in the Tharrawaddy District.

The number of cases dealt with under the Opium Act again fell from 2,072 to 1,850; the number of cases tried fell from 2,026 to 1,832; and the proportion of convictions to cases tried, 97 per cent., remained the same; the number of persons dealt with fell from 2,624 to 2,402; of persons tried from 2,516 to 2,327; and the proportion of convictions to persons tried fell from 82 to 81. The fact that there was only one Government opium shop in the Tavoy District, which is full of Chinese and Indians, was commented on as an encouragement to illicit traffic in the drug. Smuggling of opium has no doubt become more difficult of late years owing to shipping restrictions and the destruction of the crops in Yunnan by the Chinese authorities. A large seizure of 1,575 tolas was made in the Akyab District by the Excise Department, and a headman in Kyaukse, making a search on the chance

of success, seized 1,571 tolas of Shan opium from four persons, one of whom was a woman. Morphia and cocaine continued to be smuggled. The number of convictions obtained under the Opium Law Amendment Act, which is directed against persons who obtain a livelihood by illicit dealings in the drug rose from 144 to 191; this law appeared to be used in certain districts only, notably Myaungmya, Tharrawaddy, Henzada and Prome, which returned 44, 31, 27 and 24 convictions, respectively.

The number of cases dealt with under section 17 of the Gambling Act (which is of a similarly preventive nature) fell from 199 to 130 and the number of convictions from 156 to 92. Under the whole Act the number of cases dealt with fell from 3,745 to 3,607, the number sent up for trial from 3,680 to 3,572 and the proportion of convictions to cases dealt with rose from 75 per cent. to 77; the number of persons dealt with rose from 27,954 to 29,344, of persons tried from 26,525 to 28,096 and the proportion of convictions to persons tried from 53 per cent. to 57. It was suggested that if police officers had as extensive powers under the preventive sections of the Opium Law Amendment Act and of the Gambling Act as under sections 109-110 of the Criminal Procedure Code better results would be obtained. Chinese gambling clubs, especially in Bassein, continued to defy the law and illegal gambling at public festivals required careful attention.

The number of true cases under the Arms Act fell from 644 to 635; the percentage of successful prosecutions from 95 to 94; the number of persons sent up for trial from 807 to 776; and the percentage of convictions rose from 79 to 80. The number of firearms voluntarily surrendered, which had been 113 in 1915, fell from 400 to 126, of which the Akyab District contributed 97, but the number seized by the police rose from 92 to 103. The ease with which guns can be obtained in Siam continued to render the administration of the Arms Act difficult in frontier districts like Amherst. Five firearms, of which three were recovered, were stolen from American oil-drillers in Magwe who do not take sufficient precaution to guard their weapons. The number of licensed arms rose from 2,434 to 2,606, of which many were licensed only temporarily.

Non-cognizable crime.

39. There was a large increase in the number of true cases of non-cognizable crime from 38,163 to 40,266. In the more important classes of crime there was, however, a decrease of 527, from 7,803 to 7,276, and the increase occurred chiefly in offences against Special and Local Laws. The proportion of convictions to cases dealt with rose from 71 per cent. to 73. The number of persons tried fell from 77,817 to 77,524 and the percentage of convictions rose from 54 to 57. It was observed with dissatisfaction that the number of prosecutions for giving false evidence, making false complaints, etc., was comparatively small, as there were no less than 5,482 cognizable cases declared to be false and yet only 213 cases were tried under sections 193-200, 205-211 and 421-424 of the Indian Penal Code.

Preventive sections, surveillance and identification.

40. The number of persons brought before the Courts under the preventive sections of the Criminal Procedure Code fell considerably from 2,165 to 1,557 and the number called on to furnish security from 1,845 to 1,323, the percentage of convictions remaining the same, 85. The decrease occurred in nearly every district except Tharrawaddy, Bassein and Myaungmya and was very noticeable in Yamethin, Amherst and Ma-ubin. The advantage of these sections depends on their judicious use and careful choice of sureties and so these statistics cannot be depended on to represent exactly the benefit accrued to the public.

The number of men borne on the surveillance registers of the police at the end of the year fell from 9,125 to 8,727 and that of conditionally released prisoners rose from 263 to 400. Of these 9,127 persons 6,582 were under surveillance, 1,845 were in jail and 700 had been lost sight of. The 400 do not include a number of prisoners released conditionally for work in forests, mines, etc. The number of men whose names were struck off the register as they were living an honest life was 1,462. Lack of system and the fault of trying to exercise surveillance over too many persons were commented on and the help received by the police from the headmen and superior civil officers was acknowledged. The

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number of persons who were ordered to report their movements to the police under section 565, Criminal Procedure Code, rose from 444 to 487.

The number of absconders advertised during the year rose from 1,866 to 1,888; the number of absconders arrested fell from 1,430 to 1,405; and the number of names cancelled on account of deaths, etc., from 1,037 to 423. The number of persons absconding at the close of the year rose from 4,545 to 4,608, of whom the Tharrawaddy District contributed 430, Hanthawaddy 422 and Pegu 361.

The number of prisoners with previous convictions who were identified by the police before sentence rose from 4,739, of whom 1,535 had had three or more convictions, to 4,902, of whom 1,709 had had three or more previous convictions. The number of slips received and accepted for record fell from 17,089 to 15,176; 5,725 slips were withdrawn; and the total number on record at the close of the year was 171,575. The number of slips rejected rose from 2,215 in 1915 to 2,384 in 1916 and 3,229 in the year of report—an unsatisfactory increase revealing want of supervision. The number of subordinate officers who were trained in elementary finger print work rose considerably to 129; but with increased accommodation still better results are expected. The number of search slips received fell from 7,764 to 7,526 and of cases in which previous conviction was traced from 2,025 to 1,903 of which 55 cases concerned absconders and 65 surveillance criminals, the absence of most of whom had not been reported to the Bureau; the corresponding figures of the previous year were 44 and 55. The number of finger prints of recruits received and examined fell from 1,110 to 824 and of railway employees from 285 to 209. The number of cases in which expert evidence was given rose from 177, of which 121 were criminal, to 209, of which 147 were criminal, and that in which expert opinion was given in writing from 202 to 299.

Punitive Police.

41. The sanctioned strength of the additional (*i.e.* punitive police) in the districts of Tharrawaddy, Prome, Hanthawaddy and Pegu remained the same, 693 officers and men, but two forces numbering 14 and 12 were entertained in Pyu East and Pyu West villages of the Toungoo and in Wegyi of the Thatôn District in the year of report. The period of five years for which the forces in the Tharrawaddy and Prome Districts were sanctioned expired during the year and an extension of six months was obtained in each case. It was reported that the police work of the Hanthawaddy District could not be carried on without the aid of the additional police and it was observed that violent crime in the Pegu District had shown no signs of abating since the entertainment of the force in 1915. In this latter district a special police force of two head constables and 10 constables was entertained for two months at the expense of the trustees of the Shwehmawdaw pagoda to guard its jewels in consequence of its partial destruction by earthquake on the 5th of July 1917.

Railway Police.

42. The sanctioned strength of the Railway Police continued to be 62 officers and 371 men and its cost decreased very slightly from that of the previous year, Rs. 1,82,700. The conduct of the force improved, probably owing to the exercise of a stricter discipline. Fewer cases of interference with the work of the railway servants were reported, but connivance with them in the illegal carrying of third class passengers was suspected. The number of dismissals and removals fell from 13 to 10 and the number of officers and men departmentally punished from 18 and 46 to 5 and 44, respectively. The number of officers and men rewarded rose from 11 and 30 to 12 and 48, respectively, but the proportion to the number of the force was still small. The number of recruits who attended the depôt at Ywataung rose from 37 to 43; of those passing out fell from 34, of whom 9 obtained first class certificates, to 26, of whom 10 obtained first class certificates; of men who attended the depôt from 85 to 81; and of men who qualified for the St. John's Ambulance Society's certificate and badge from 38 to 16. All officers except two fired the annual revolver course and the Revolver Club was in a flourishing condition.

The number of true cases excluding cases in which investigation was refused, false or mistaken and compounded cases and cases in which the accused

died, etc., dealt with by the Railway Police rose from 1,213 to 1,391; the percentage of convictions from 60 to 62; the number of persons finally dealt with from 1,465 to 1,532; and the percentage of convicted from 67 to 73. Cases of house-breaking and theft increased slightly and nuisances greatly. The number of true attempts to wreck trains fell from 14 to 11 and conviction was obtained in one case; none were obtained in the previous year; action was taken to prevent old sleepers being left on the side of the line. One important case of theft of Rs. 17,843 from a steel safe in the railway station at Henzada took place.

The number of cases under the Excise and Opium Acts fell from 145 to 110 and the percentage of convictions obtained was 86. The number of cases dealt with under the Arms Act rose from 15 to 20 and the percentage of convictions fell from 93 to 85, but good work was done as three revolvers and a pistol were seized.

The number of violent crimes fell from 12 to 7, of which 5 were robberies, and the number of convictions remained the same, 4, as in the previous year. The practice of allowing cattle to stray on the railway line is very dangerous and the inadequacy of the punishments inflicted for this offence was commented on.

The number of criminals on the surveillance registers at the end of the year fell from 418 to 416. Fifty absconders remained at large at the beginning of the year and 11 more absconded during it, but 7 were arrested and the names of 4 others were struck off. Lack of co-operation with the district police was observed and steps were taken by transfers from one branch to the other to remedy the evil. Twenty-three village headmen, 21 villagers and 16 railway employees were rewarded; the figures in the previous year were 16, 19 and 10, respectively.

Military Police.

43. At the end of the year of report the sanctioned strength of the Military Police force was 16,409 Indian officers and non-commissioned officers and men (of whom 400 were subadars and jemadars and 1,381 havildars and naiks) or 45 more than the actual strength. At the end of the previous year the force had been 272 above the sanctioned strength. Restriction on the recruiting of Sikhs, Punjabi-Mussalmans and Jats was maintained and sanction was given to enlist 3 more companies of Burmans and half a company each of Shans and Chins, thus increasing the companies of indigenous races to 4 of Burmans, 6 of Karens, 1 of Shans, one and a half of Chins and 7 of Kachins.

A temporary post of 108 men was established at Kangmong in the Northern Shan States to keep peace in the Kachin Hill Tracts, the temporary post at Kanti was maintained and a permanent post at Punlumbon to render communication with Putao more secure was sanctioned. The Recruits Battalion at Meiktila was abolished as unnecessary.

In September 1917 a small force was sent to Nati circle in the Northern Shan States, where trouble among the Kachins was feared, but the danger passed. In November for a similar reason reinforcements were sent to the posts near the Jade mines in Myitkyina. Later on in the same month a rebellion in the Haka Subdivision of the Chin Hills and the investment of Haka itself was reported and at once a force under Major Burne was sent in aid. On the last day of the month help was asked for from Falam and a force of 300 rifles from the Battalions of Bhamo, the Southern Shan States and Rangoon was despatched and at the same time two columns of Assam rifles were sent by the Government of Assam and two maxim guns were lent by the military authorities. In the meantime Major Burne with 4 Indian Officers and 131 men of the Chindwin Battalion had sailed up the Chindwin River on the 30th and the party was reinforced on the way by 62 rifles from outposts in the Upper Chindwin District. By forced marches he and his advance-party succeeded in reaching Falam on the 6th December, a piece of splendid work for which they received the thanks of the Lieutenant-Governor. They were followed at practically the same high speed by the men of the Reserve and Mandalay Battalions under Subadar Abdul Majid whose performance was a notable one.

The garrison at Haka which had been promptly reinforced by the Assistant Commandant, Falam, on the first news of the outbreak, consisted of

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3 Indian Officers, 144 rifles and one mountain gun and the only news received by Falam up to this date was that it was surrounded by 1,500 Chins in three camps. The wife and child of a police sergeant had been sniped, but the rebels had not dared to attack the post.

On the 7th December a column of 200 rifles and one mountain gun proceeded to Minkin on the road to Haka. On the 9th it was opposed and sustained a few casualties, none fatal. After shelling and burning Nyerlon, four miles from Haka, it returned to Pioneer Camp on the 10th. In the meantime reinforcements had been steadily arriving at Falam from Mônywa and 50 more rifles reached Pioneer Camp, at which place the Assistant Superintendent, Haka, also arrived on the 12th with 30 rifles and 15 Mounted Infantry. The enemy resorted to sniping and ambuscades and more casualties were sustained. On the 14th the column arrived at Haka without opposition. On the 15th Captain Falkland with 150 Assam Rifles reached Falam from Fort Aijal and was ordered to proceed to Haka. Reconnoitring parties and patrols were sent out in all directions and more casualties, principally due to sniping, were sustained. In one of these affairs Mr. Adams was slightly wounded in the arm by a slug. On the 17th a column of 80 rifles under Major Burne was despatched to deal with rebel villages to the north-east of Haka and returned next day after burning Farong and Firthi. Captain Falkland with 75 Assam Rifles reached Haka on the 18th.

As 57 guns had been brought into Haka principally by the Nyerlons and other villages north-east of Haka, the Haka-Falam road was considered safe and Major Abbey, the Battalion Commandant in charge of the operations, now decided to organize three columns to deal with rebel villages south-east and south of Haka. On the 21st No. 1 column under Major Burne was sent out along the Gangaw road to deal with the Yokwas and on the 22nd No. 2 column under Captain Falkland set out for Yavar, Sakta and Kapi. The 3rd column was held in reserve at Haka. After burning Manghu, No. 1 column met with little resistance and the Yokwas showed a conciliatory spirit, bringing in 27 guns. Mr. Molesworth with his Mounted Infantry column arrived at Yokwa from Gangaw on the 29th. He found the Yeshin bungalow burnt, the telegraph wires cut and stockades along the road, but met with no resistance. After meeting Major Burne he returned along the Gangaw road, as his Mounted Infantry were ordered overseas on active service. No. 2 column met with more resistance and after taking Yavar burnt Sakta which had refused to submit.

At the close of the year No. 1 column under Major Burne was returning to Haka; No. 2 column under Captain Falkland was marching on Kapi; whilst No. 3 column under Major Wright was marching on the Saungtiya group to the south-west of Haka. A column of 150 Assam Rifles under Captain Montefiore was marching to Haka from Lungleh and dealing with rebel villages on the Assam border west of Haka on its way. By the end of the year the columns had succeeded in clearing the surroundings of Haka and the northern part of the subdivision and in re-establishing communications between Falam and Haka and the plains. The operations involved a great deal of hard marching as well as actual fighting in difficult country against an often invisible enemy who proved himself an adept at sniping and ambuscade and all ranks deserved great credit for the success attained. It took many thousands of regular troops five years to conquer the present administered portion of the Chin Hills and this fact gives some idea of what a task faced the small Military Police columns which set out in December against the wily and dangerous Chin. Our casualties up to the end of the year were nine killed including one compounder and 15 wounded including Mr. Adams.

One hundred and twenty-five Military Police were sent on patrol duty in various troubled districts, but some had to be withdrawn after a short time owing to frontier demands. The Karens did excellent work in the Tharrawaddy District, shooting two famous dacoits and assisting in capturing the Paukkôn-Thônzè gang for which they received Rs. 560 in rewards and arresting 15 absconders and suspects wanted in cases of violent crime in the Toungoo, Yamèthin and Thayetmyo Districts.

The total cost of the force for the financial year rose from Rs. 60·99 lakhs to Rs. 62·04 lakhs. The increase was due to expenditure in connection with the operations in the Chin Hills and Upper Chindwin. In addition an expenditure of Rs. 4·04 lakhs was incurred under the head "Political" during the year, Rs. 32,418 more than in 1916-17. The increase was mainly due to the higher rate of transport and increase in the cost of supplies.

The keenness of the Burma Military Police to volunteer continued and 4,644 were supplied to the army during the year of whom 2,507 joined different regiments in India, 2,029 the 85th Burma Rifles, 31 the Sappers and Miners, 8 the Labour Corps, and 20 as signallers and 49 as instructors to the Motor Transport Training School, Rawalpindi. The Burma Battalions, now called the 70th Burma Rifles, entered on their existence with a staff of instructors, practically all Burma Military Police. The Burma (Military Police) Mounted Infantry which is now on Active Service, mounted on Burman ponies, has done remarkably well, as letters from high Commanding Officers show.

In this, the fourth year of the war, it was decided to grant to the Burma Military Police, what its Indian ranks had all along desired, a Unit of its own. The boon came late as of 16,000 men in the Burma Military Police in August 1914, over 7,000 of the best had already joined the Indian Army on Active Service. The Unit had therefore to be made up of 8 classes, because it was found impossible to supply or keep fed 4 full class companies. The battalion was given the title of the 85th Burma Rifles. It was formed at Mandalay by Major E. Burd, I.A. and comprised 223 Punjabi-Mussalmans, 229 Sikhs, 443 Gurkhas, 142 Garhwalis, 247 Kumaonis, 194 Burmans, 320 Kachins and 231 Karens. After a few days at Mandalay the regiment went on Active Service and although it has not yet seen any fighting, a letter received from the Officer Commanding shows that it is shaping well.

The Kumaonis hitherto untried made a great name for themselves at the front and proved their right by valour in action to take rank with the bravest, and in such a renowned regiment as the 37th Dogras.

The following extracts from letters may be quoted regarding the force as a whole :—

"I would in the name of the 45th Sikhs thank all the Burma Military Police men of all ranks who did so magnificently with our men on February 1st and who I fear have lost to the same extent as we have."

"The Officer Commanding wishes to place on record his appreciation of the excellent work of the Companies engaged in the operations of yesterday. . . . The men of the Burma Military Police deserve special mention. Their behaviour under fire and under difficult conditions has deserved high praise. The men all possess a keen feeling of *esprit de corps* and I would be glad if they could be permanently posted to this regiment."

The total number of volunteers supplied by the Burma Military Police since war began up to the end of 1917 was 9,858, including 301 Mounted Infantry, out of a sanctioned strength of 16,409. This is a splendid record of which the Burma Military Police may well be proud. The number of casualties since war broke out amounted to, killed 217 ; died of wounds 53 ; missing 71 ; died of disease, accidents, etc., 134 and wounded 589 : total 1,064.

The question of promotion of men on Active Service was a difficult one. Under the present rules the Military Police retain the right of promoting their men and if the Commanding Officer of the regiment concerned cannot or does not wish to absorb the promotion, he can return the man to his battalion in Burma. Some Commanding Officers objected to this system and proposed that they alone should make promotions, but this would not be the most satisfactory way out of the difficulty.

The general health of the force showed an improvement. Plague occurred in the Military Police Lines at Bhamo, Ma-ubin, Myaungmya and Bassein and there were eight deaths. When plague was raging in Mandalay 580 men were voluntarily inoculated and there were no deaths. The number of casualties through deaths and invaliding rose from 563 to 830. Black-water fever broke out at Myitkyina and Putao and five men out of twelve attacked died at Putao.

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Seven Karens of the Chindwin Battalion contracted beri-beri and two died. There were also outbreaks of small-pox in the Myitkyina and Reserve Battalions, but none of the cases were fatal. Five hundred and sixty men were sent on sick leave and the admissions to hospital were 15,046. The figures of the previous year were 706 and 16,659.

The decrease in malaria in the Myitkyina Battalion was due to the regular use of quinine and other preventive measures. Prophylactic doses were given to all men bi-weekly from April to the end of December. Most of the men with enlarged spleen at headquarters were given daily 30 grains of quinine continually for about two months and a certain number of men were then made fit for active service who were previously pronounced as unfit. A special mosquito brigade was employed throughout the year in filling up the pits, pools, ditches, draining places and clearing up rank vegetation, brushwood, etc. Mosquito larvæ were destroyed by pouring kerosine oil over the stagnant water. The use of mosquito curtains was enforced in the battalion at headquarters and outposts as usual and men were strictly enjoined to sleep inside the curtains, especially during the malarial season. Mosquito curtains are now, however, very expensive.

In spite of the restriction of the field for recruiting and the competition of the Army the number of recruits rose from 3,391 to 4,521, of whom 114 Indians, 303 Burmans, 62 Chins, 235 Kachins, 344 Karens and 64 Shans were locally enlisted in Burma, but many of these recruits were of poor class, poor physique and immature. A central recruiting committee was formed during the year and the Burmans, a few Kachins and Karens, were obtained through its agency. Little difficulty was experienced in recruiting Karens from Lower Burma, but, except in the Bhamo District, very few Kachins were obtained and in the Southern Shan States only 64 Shans.

The force suffered from a want of trained instructors and opportunity was taken during the year to have instructors trained at army classes. Several were sent to India to be taught and 20 Indian officers and non-commissioned officers underwent a course of training in section and platoon drill at Meiktila. The signalling of the force was maintained at its usual high level.

The number of mounted infantry ponies was, in spite of the loss caused by the despatch of the best of the ponies to the front with the unit in the previous year, 1240, or 72 above the sanctioned strength, but the number of casualties rose from 182 to 248, chiefly to the casting of many on account of the disease of kamri, old age and debility. The number of transport animals was 869, or 161 below sanctioned strength, and the casualties rose from 160 to 190, chiefly on account of the diseases of surra and epizootic lymphangitis. Difficulty was again experienced in obtaining mules of a good stamp.

In spite of interference caused by column operations, of 14,119 trained men 70 per cent. fired the annual musketry course.

The number of casualties in the force rose from 835 to 1,179; the number of deaths among officers and men from 2 to 9 and 277 to 332, respectively; the number of officers and men invalided from 27 to 34 and 283 to 466, respectively; and the number of desertions from 90 to 187, the increase being chiefly among the Karen recruits who were probably trained too near their homes. The number of punishments rose from 1,568 to 1,674, chiefly owing to increases in the Southern Shan States and Shwebo Battalions. Men overstayed their leave frequently and a tightening of discipline was found necessary. Besides the rewards already mentioned for good work on active service, the force was awarded one Khan Bahadur two Sardar Bahadurs, four certificates and swords of honour, one certificate of good conduct, eight Royal Humane Society's Bronze medals and certificates and one cash reward and good service certificate; and 27 non-commissioned officers and men were awarded Rs. 782 and good service certificates for good work in hunting down dacoits and arresting criminals.

The condition of the arms of the Toungoo and Bhamo Battalions improved but that of the other battalions was not so good. The need of a good mobile field gun to deal with strong stockades was felt.

The shortage of British officers owing to the war was a serious matter and the old appointment of Naib Commandant was temporarily revived during the year

and ten Subadar-Majors were promoted to this rank with effect from the 1st of August. CHAP. III.—PROTECTION.

44. The sanctioned strength of the Rangoon Town Police, including the Port Trust Police and the Hackney Carriage Police, was 102 officers and 1,246 men at the end of the calendar year 1916 and the number of officers was raised to 106 during 1917, but the actual strength at the end of the year was less by 3 officers and 105 men. There was thus again a shortage of men. Rangoon Town Police.

During the year five European Sergeants and two Sub-Inspectors were directly appointed and 136 men were enlisted. Great difficulty was experienced in obtaining recruits, especially Indians of good physique. Men from the United Provinces and Bihar of the durwan class are plentiful, but are not very suitable, and the physical standard of those who applied for enlistment was much too low. Under these circumstances the Local Government sanctioned an increase of the Burman constables and the shortage was being made up rapidly, when the formation of the 70th Burma Rifles and the Mechanical Transport Companies with their higher rates of pay stopped the flow of Burman recruits for the Police and even induced many of those who had already enlisted to resign. The difficulty of approximating to the sanctioned strength has become a serious one, the more so as recently reclaimed areas in East Rangoon require to be adequately policed.

The cost of the force fell from Rs. 6,91,935 in 1916-17 to Rs. 6,81,193 in 1917-18. The conduct of the force was good and better than that in the previous year. Eight men were dismissed and 23 removed and 4 officers and 116 men were otherwise punished. One officer and 77 men resigned during the year and 7 Indian constables failed to return from long leave in India. There were 13 deaths and 5 officers and 36 men retired on pension or gratuity. Six officers and 484 men were given money rewards during the year—these figures show a slight decrease from those of 1916. Nineteen officers and 32 men were awarded good service certificates. The Magistrates commended the work of eight officers and five men; the Excise Department rewarded 8 officers and 40 men; and 50 men were granted good conduct stripes for case and patrol work. One hundred and thirty-six recruits passed through the Training Depôt in 1917; 152 in 1916. Owing to the shortage of men in the force it was again found impossible to carry out recurrent training.

A very pressing question of administration was that of accommodation. The existing police buildings are insanitary and overcrowded and quite insufficient to house the force. In only six police-stations of the 20 in the town is accommodation provided for station officers. In one police-station not only the station officer but all the head constables had to rent houses or rooms in the neighbourhood. Such a state of things is apt to lead to decrease in efficiency and deterioration in discipline. The Commissioner of Police cited the case of a police-station in Colombo, the jurisdiction of which suddenly changed from being the most criminal to the best behaved, the change synchronizing with the proper housing of the police of the station. The allotment of the necessary funds was under the consideration of the Local Government.

There was no outstanding feature in the crime of Rangoon during the year and there was no political unrest. There was an increase from 1,366 to 1,518 in the number of true cases of cognizable crime dealt with by the police (excluding petty offences such as those connected with religion, public nuisances and those punishable under special and local laws, etc.) which, though regrettable, especially as the figure for 1916, 1,366, showed an increase of 160 over that for 1915, is not surprising when one considers the economic strain of this fourth year of the war and the shortage of men in the force. Moreover the people seem to have reported petty crime more thoroughly than usual. Features of the crime were the frequency of thefts from houses in Cantonments in the early part of the year and of thefts of clothes. Thefts of bicycles frequent in 1916 practically ceased in 1917.

The decrease of 2,729 in the number of cases of public and local nuisances is remarkable. There was a smaller decrease in the previous year. One cause may have been the preoccupation of the police with more important work such as the supervision of public functions and festivals which were more frequent.

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The Bakr-Id fell on the same day as the Hindu Dasara and the Burmese Tazaungdaing Festival. The last seldom gives any trouble, but the Hindus made numerous objections to the slaughter of cattle even in places in which cattle had been slaughtered on the Bakr-Id in previous years. However, the police dealt firmly with the situation and there was only one small disturbance and it occurred in a remote part of the town. The inspection of all passengers arriving in the port and the surveillance of political suspects again occupied much of the time of the police, but considerable relief was afforded by the abolition of the taking of finger impressions. Indian passengers from Calcutta and the Coromandel Coast examined by the police numbered 179,494. A certain amount of unrest among the Chinese community was caused by the conflict between two rival societies in Basra. The Vigilance Society was not active, but the report of the officer deputed to study the subject of prostitution in Calcutta, Bombay, Madras and Colombo was considered by a representative Committee in Rangoon and its recommendations are now under the consideration of the Local Government.

A satisfactory feature was the increased use made of the power of refusing investigation in certain cases, chiefly those in which unidentifiable property was concerned. There was a considerable increase in non-cognizable crime dealt with which was chiefly due to an increase in prosecutions under the Municipal Act.

Detection, being the proportion of cases in which conviction was obtained to all true cases investigated, fell from 64 to 62 per cent., but the percentage of persons convicted to persons arrested rose from 76 to 77. The percentage of value of property recovered to property stolen rose from 18 to 27, but this is due rather to the good fortune of the police in certain cases than to an increased mastery over crime.

Crime, excluding petty crime, increased. In particular, there was a decrease of 5 in true cases reported of murder, attempts to murder and culpable homicide and of 6 in true cases reported of criminal breach of trust, but the following heads show increases as follows:—grievous hurt, 16; ordinary hurt, 8; dacoity, 2; robbery, 4; lurking house-trespass and house-breaking, 1; and ordinary theft, 66. The satisfactory decrease in murders was counterbalanced by the unfortunate increase in cases of grievous and ordinary hurt. The latter was attributed to the effect of the war in making the people familiar with violence and the cinematographic exhibitions may have had a similar effect. Although dacoities increased in number none of them were important. Of the robberies only 5 deserve special mention. In one diamonds to the value of Rs. 4,000 were stolen and recovered by the police; in another two excise informers were robbed of Rs. 140 which had been given them for the purchase of cocaine; in another the police successfully laid a trap for robbers attacking cargo-boats in the river and caught two of them in the act; in all these three cases convictions were obtained. The other two were the most serious and were committed in private houses; in one of them a firearm was used and both were undetected.

Although cases of lurking house-trespass and house-breaking increased in number, those in which the motive was theft slightly decreased and there was much less property stolen and a very much larger percentage of it was recovered.

Though cases of theft increased greatly, cases of cognate offences such as criminal breach of trust, receiving stolen property, etc., decreased. Nevertheless, the increase in true offences reported of minor offences against property, 48, was considerable and may be attributed chiefly to the economic conditions due to the continuance of the war.

The police continued to be very successful in excise and opium cases and maintained the crusade begun in 1916 against gambling, but its effect has been to drive the gamblers beyond the limits of the town. The vice is common to Burmans, Indians and Chinamen and is highly organized among the two latter. Much success was obtained under the Arms Act. The seizures included one pistol, 4 revolvers and 57 rounds of cartridges, and, in view of the ease with which dacoities and robberies can be committed with firearms, were of great importance. The Rangoon Police Act was successfully employed throughout the year and a percentage of convictions of 89, practically the same as that of last year, was obtained; seven lepers were dealt with, showing a decrease of 10; and one prose-

cution under the preventive sections of the Criminal Procedure Code was instituted, showing a decrease of 7.

At the beginning of 1917 there were 528 criminals under the surveillance of the police and at the end there were 441. The decrease was due rather to deaths and transfers to other districts than to reformation of character. Prosecutions for drunkenness decreased considerably. Very few offences were directly attributable to drink, but it is likely that many offences of hurt were committed in revenge for injury received previously from persons under the influence of liquor.

The shortage of men had an adverse effect on the patrolling of the town. The ward headmen and ward elders gave great assistance to the police and their services were liberally acknowledged. Two of their number were given silver-mounted knives and certificates by the Local Government.

Motor traffic increased during the year and improved methods of regulating the traffic in the streets were adopted.

Difficulty was again experienced in dealing with organised theft of rice from cargo-boats at anchor in the river.

Village Administration.

45. The number of headmen fell during the year 1917 from 17,059 to 16,806 and the number of headmen in charge of circles as distinguished from village-tracts fell from 414 to 388; the latter decrease is due to the policy of dividing circles into village-tracts and the former to the policy of amalgamating village-tracts bearing small commission on revenue collections. The abolition of "Myothugyiships" continued. The boundaries of many more village-tracts were defined and if necessary demarcated and the headmen were supplied with maps of their charges. Whenever a headmanship became vacant the question of the advisability of joining his charge with a neighbouring one was considered with a view to securing to the incumbent a suitable amount of commission on revenue collections. In rich Lower Burma districts this amount was estimated at about Rs. 200 to Rs. 300. In some districts maps showing the village-tracts were made and the communications for the upkeep of which the villagers are responsible were marked on the copies issued to headmen.

The number of headmen invested with special judicial powers continued to increase. At the end of the year, 1,723 held special criminal and 1,905 special civil powers, 10 and 11 per cent., respectively, of the number of headmen in the Province. The figures for the previous year were 1,654 and 1,849, respectively. The proportion of specially empowered headmen, however, varied very greatly from division to division and even from district to district in the same division and this was probably due to a variety of opinions among Commissioners and Deputy Commissioners, some looking on the grant of special powers chiefly as a means of reducing litigation in the courts, some chiefly as a means of rewarding headmen for good work. Some headmen try a remarkable number of cases; some very few or even none. Recourse to the courts of headmen is voluntary and so the number of cases tried by a headman depends largely on his personal character and qualifications and the interest he takes in judicial work. It was quite clear, however, that headmen gave considerable relief to the civil and criminal courts and it was noted with satisfaction that their decisions were considered to be generally just.

The amount of fines inflicted by headmen on villagers fell from Rs. 1,53,751 in 1916 to Rs. 1,28,164 in 1917. The decrease was common to all divisions except Tenasserim and it was suggested that headmen used praiseworthy discretion and resorted to warnings and confinement instead of fines, which in the economic conditions of the year they were reluctant to inflict. The Prome District continued to show by far the highest amount of such fines, Rs. 12,304, and the neighbouring district of Tharrawaddy came next with Rs. 9,276. The punishments inflicted by headmen were appropriate and their orders were set aside in only 2 per cent. of the cases they tried, a slightly lower figure than that of the previous year. District Officers examained fewer cases and showed the greatest diversity in the number of cases examined, which was probably due to incomplete record of the examination on tour of headmen's registers of cases. In one district, Pyapôn, the proportion of headmen's orders set aside was remarkably high.

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The headmen continued to do their revenue work well, especially in the Sagaing Division, where in the Lower Chindwin District they brought their collections direct into the district headquarters with guards of villagers and so saved the Township Officers and police considerable work and anxiety. In parts of the Tenasserim, Irrawaddy and Arakan Divisions, however, it was unfavourably commented on. In the Bassein District of the Irrawaddy Division their apathy, indolence and occasional corruption was said to have caused loss of capitation-tax.

The headmen as usual showed on the whole indifference towards their excise duties, especially in the Sandoway District of the Arakan Division. In parts of Tenasserim Division they seemed to fear reprisals and preferred to connive at illicit practices; on the other hand the personal interest taken by the Deputy Commissioner effected a very great improvement in the Tharrawaddy District and there was a marked change for the better in the Bassein, Yamèthin and Toungoo Districts. Headmen and police continued to co-operate cordially in the suppression of crime and in the Tharrawaddy District a reorganisation of the village administration synchronised with a reduction of 29 per cent. in violent crime, 48 in cattle-theft and 16 in cognizable crime. The experiment of arming selected headmen with guns for protection of their villages against dacoits and robbers was continued with success and no abuse of the privilege of possessing these weapons was recorded.

Rural sanitation progressed slightly. Village sites were enlarged; raised and drained pathways were made inside villages to take the place of stepping stones and logs laid in the mud; arrangements were made to stable cattle outside. In a few districts rural sanitary inspectors were appointed. In some villages in the Tharrawaddy District fencing was abolished on sanitary grounds. Vaccination against small-pox and inoculation against plague were in some cases voluntarily undergone, but the prejudice against the latter has not yet been overcome. Inter-village communications received special attention in Upper Burma and in the Toungoo and Tavoy Districts of Lower Burma: in the delta they constitute a more difficult problem.

The conduct of headmen was, as usual, very good, and the punishments of all kinds inflicted on them fell from 650 to 491, the number of fines inflicted decreasing by about a half. The number of headmen who received rewards increased from 2,025 to 2,050, owing to the large number in the Yamèthin District.

Owing to the war headmen were called on to help in recruiting for the Army, Labour Corps, etc., and assist in persuading the people to subscribe to the Indian War Loan and other War Funds and they responded willingly and loyally. There is no doubt that where the remuneration is adequate the post of headman is very popular. In Upper Burma, *ywagaungs* (subordinate headmen of hamlets) worked satisfactorily. The Deputy Commissioner in his inquiry into the causes of crime in the Tharrawaddy District has proved that the ten-house *gaung* (rural policeman) in Lower Burma is a valuable link in the village administration of which more use should be made.

The number of fines imposed on village-tracts by Deputy Commissioners, with the previous sanction of Commissioners of divisions decreased from 288 to 236, but the amount imposed increased from Rs. 75,431 to Rs. 80,723. In 1915, 196 village-tracts were fined a total of Rs. 50,460. The amount of fines inflicted on village-tracts thus showed an upward tendency in contrast to the fines inflicted by headman of village-tracts on their villagers. Very little use was made of the Track Law (under which responsibility for theft is laid on the village beyond which tracks cannot be traced) except in the Prome and Tharrawaddy Districts, and the great majority of the fines were inflicted for failure to resist or prevent escape of dacoits and robbers. Such fines were imposed chiefly in the Akyab District of the Arakan Division, in the Pegu Division, in the Bassein District of the Irrawaddy Division, in the Thatôn and Mergui Districts of the Tenasserim Division, in the Mandalay District and in the Meiktila Division; no less than 30, aggregating Rs. 4,819, were imposed in the Prome District of the Pegu Division and 28, aggregating Rs. 12,300 in the Yamèthin District of the Meiktila Division. The most important case was one in which the inhabitants of Wegyi village in the Thatôn District were heavily fined for the suppression of evidence regarding the murder of two Excise Sub-Inspectors in their village. On the

other hand, villagers were rewarded in several cases for their courage in resisting armed dacoits. Sixty-five persons were removed from their homes to other places for harbouring and assisting criminals. There was renewed discussion on the subject of the improvement of the village administration. It was agreed that the dignity and authority of headmen should be raised, more especially by choosing men of good character and standing; by giving them important charges bearing adequate commission on revenue collections; by treating them as unofficial representatives of their village-tracts, rather than as subordinate officials; by refraining from causing them unnecessary journeys to headquarters; and by arranging for their co-operation. As a result many districts following the lead of Tharrawaddy now have periodical conferences of neighbouring headmen. Remission of certain taxes was given to certain lesser village officials.

Wild animals and snakes.

46. Eighty-one persons were killed by wild animals (excluding snakes): in 1916 and 1915 the figures were 75 and 66, respectively. There were notable increases in the Kyaukpyu District, where 5 persons were killed by tigers; in the Pegu District where 4 persons were killed by elephants, 5 by tigers and 5 by bears; in the Pakôkku District where 6 persons were killed by elephants and 3 by tigers; and in the Tenasserim Division where 3 persons were killed by elephants and 9 by tigers; but these were counterbalanced by decreases in the Irrawaddy, Mandalay, Sagaing and Meiktila Divisions. The number of persons killed by elephants rose from 13 to 18; by tigers from 31 to 43; but the number killed by leopards and panthers fell from 15 to 6. As usual alligators and wild boars caused the loss of a few lives, but this year no persons were killed by bison.

The number of persons who died of snake-bite was 1,473, three less than in 1916 and 85 less than in 1915. There was an increase in the Minbu District, where the figures showed a tendency to revert to the high level of 1915, but little variation in the others.

The number of wild animals (excluding snakes) destroyed rose from 5,825 to 5,873, but failed to reach the total (6,352) of 1915. The rewards paid for their destruction amounted to Rs. 76,339, a sum which differs very little from that of the two previous years. The Pegu and Minbu Districts showed increases in destruction, chiefly of leopards and panthers; other districts showed little variation. More than half of the rewards as usual were given for destruction of leopards and panthers. The number of elephants destroyed rose from 30 to 58; that of tigers fell from 536 to 484; that of leopards and panthers rose from 2,737 to 2,974; that of bears fell from 1,537 to 1,520; and that of "other animals" fell from 985 to 837. A glance at the figures for 1915 shows that the number of elephants destroyed has tended to increase considerably, while that of "other animals" has tended to decrease. Of the latter the most numerous are wild pigs and wild dogs. Very occasionally an alligator is destroyed. The elephants were destroyed chiefly in the Ruby Mines District; members of the cat tribe in all districts of the Province, except Hanthawaddy and Ma-ubin; bears in nearly every district; wild pigs chiefly in the Akyab, Katha and the Upper Chindwin Districts; and wild dogs in the Magwe, Mandalay and Sagaing Divisions and in the Chin Hills.

The number of snakes destroyed shows great variation. In 1917, 16,398 were destroyed; in 1916, 11,905; and in 1915, 34,757. This may be explained partly by the fact that rewards for their destruction were given in 1915, but not subsequently. The Kyaukpyu and Insein Districts showed decreases; Tharrawaddy and Ma-ubin very large increases; but it is probable that the record of snakes killed is not so reliable as that of wild animals.

The number of licenses held under the Indian Arms Act for the protection of crops against and the destruction of wild animals has risen from 7,530 in 1915 to 7,675 in 1916 and to 8,051 in 1917. There seems to be growing confidence in granting such licenses and most of the licensees are headmen.

Criminal Justice.

General.

47. The administration of Criminal Justice is not the same in Upper as in Lower Burma. In the latter it is under the control of the Chief Court which

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during the year of report, 1917, consisted of five permanent Judges and (from the 1st November 1917) a temporary Additional Judge. The judiciary in Lower Burma comprised further 10 Sessions and Additional Sessions Judges, all Europeans; 22 District Magistrates of whom 17 were Europeans; one temporary Additional District Magistrate, a European; 185 Magistrates of the first class of whom 13 were Europeans; 95 of the second of whom one was a European; 43 of the third class, all Burmans or Indians; 2 Special Magistrates under section 14, Criminal Procedure Code; and 47 Benches of Honorary Magistrates. There was therefore a large increase in the number of first class Magistrates and Benches of Honorary Magistrates and in the number of Burman District Magistrates—on the whole a decrease of 17 Courts presided over by Europeans and an increase of 40 presided over by non-Europeans.

In Upper Burma the Judicial Commissioner controls the administration of Criminal Justice. There was no change in the jurisdiction of the Courts during the year except the transfer of 15 village-tracts from the Salingyi to the Palè Township of the Lower Chindwin District. The judiciary further consisted of 14 Sessions Judges and Additional Sessions Judges, all Europeans; 19 District Magistrates, all Europeans; 92 Magistrates of the first class of whom 22 were Europeans; 64 of the second of whom 5 were Europeans; 22 of the third of whom one was a European; 14 Special Magistrates under section 14, Criminal Procedure Code, of whom 9 were Europeans; and 25 Benches of Honorary Magistrates. There was an increase of 2 Additional Sessions Judges, of 5 first class Magistrates and 12 Benches of Honorary Magistrates—on the whole a decrease of 6 Courts presided over by Europeans and an increase of 15 presided over by non-Europeans.

The number of Courts inspected during the year was fair in Lower Burma and decreased considerably in Upper Burma. Complaints of unsuitable or inadequate accommodation for Magistrates continued to be made in Lower Burma.

A special tribunal was established and sat at Mandalay to try certain persons charged with sedition.

Cases.

48. In Lower Burma the number of cases reported to the Courts fell from 87,346 to 84,130, of cases under the Indian Penal Code from 38,344 to 36,184 and of cases under other laws from 49,002 to 47,946. The number of true cases reported fell from 69,680, of which 25,828 were under the Indian Penal Code, to 67,386, of which 24,926 were under the Indian Penal Code. The percentage of true cases to the whole was 80, the same as last year; that for cases under the Indian Penal Code rose from 67 to 69; and that for those under other laws remained the same, 89. The lowest percentage, 55, was reported in Northern Arakan and the second lowest, 65, in the Pegu District; the highest, 92, as usual in Rangoon.

The number of true cases of offences against the public tranquillity rose from 174 to 210; and of offences relating to weights and measures from 17 to 63; that of those affecting life fell from 415 to 413, of which 288 were murders; that of dacoities fell from 147 to 137; that of robberies rose from 245 to 247; that of thefts fell from 7,601 to 7,253; and that of cattle thefts fell from 1,643 to 1,445, the diminution being most marked in the Hanthawaddy, Insein, Tharrawaddy, Toungoo and Prome Districts. In the Insein District there was an outbreak of dacoity on a considerable scale due to the operations of an organised gang of outlaws between January and June 1917, when it was broken up by the Magistracy and the Police, but robberies decreased. In the Tharrawaddy District all the more serious forms of crime showed a decrease owing to an improvement in village administration and steps taken to suppress illicit opium traffic, and in the Bassein District dacoity and robbery greatly diminished as a result of rigorous executive measures.

True cases under the excise laws rose from 5,165 to 5,277, to which Rangoon contributed 593 and the Thatôn District 569. The increase from 5,580 to 6,553 in true cases of offences against the Municipal Act and Rules was due to a great increase of prosecutions in Rangoon under the building laws. True offences under the Gambling Act, rose from 2,023 to 2,184 and the number of persons tried from 22,566, of whom 9,823 were convicted, to 23,278, of whom 11,957 were convicted; the low percentage of convictions, 51, was ascribed to

the failure of Magistrates to make a preliminary enquiry before issue of process, with the result that many persons appeared for trial against whom there was no evidence. There was a marked increase from 1,514 to 1,946 of prosecutions under the Fisheries Act, which was attributed to economic stringency caused by the war; a considerable increase from 672 to 771 in cases under the Village Act, though the percentage of persons acquitted was large; and an increase from 752 to 925 in cases under the Workman's Breach of Contract Act, the number of abortive prosecutions being very marked in the districts of Tavoy and Mergui. The number of complaints summarily dismissed under section 203 of the Criminal Procedure Code rose from 3,802 to 3,856—a very slight improvement.

In Upper Burma the number of cases reported to the Courts fell from 30,016 to 29,420 and the decrease would have been much greater but for an increase of about half in prosecutions under the Municipal Act in Mandalay. Thus cases under the Indian Penal Code fell from 13,198 to 12,316 and under other laws rose from 16,818 to 17,104. The number of cases found to be true rose from 23,902, of which 9,353 were under the Indian Penal Code and 14,549 under other laws, to 23,917, of which 8,892 were under the Indian Penal Code and 15,025 under other laws. The proportion of cases found to be true to the number reported rose from 80 per cent. to 81. That for cases under the Indian Penal Code rose from 71 per cent. to 72 and under other laws from 87 per cent. to 88.

The number of true cases affecting human life fell from 139 to 138; that of true cases of theft from 1,873 to 1,769; but of robbery and dacoity rose from 90 to 106. True offences under the Forest Act and Rules fell from 594 to 402; under the Gambling Act fell from 1,489 to 1,256, the percentage of convictions of persons obtained remaining about 50; under the Police Act fell from 2,293 to 1,718; under the Municipal Act and Rules rose from 3,767 to 5,328; under the Opium Act and Rules fell from 453 to 360; and under the Railway Act rose from 457 to 653.

The number of complaints dismissed under section 203 of the Criminal Procedure Code fell from 1,009 to 881.

Disposal of cases.

49. In Lower Burma the number of cases brought to trial fell from 84,141, of which 35,769 were under the Indian Penal Code and 48,372 under other laws, to 80,650, of which 34,113 were under the Indian Penal Code and 46,537 under other laws. The number of persons under trial during the year fell from 141,432, of whom 56,249 were tried under the Indian Penal Code and 85,183 under other laws, to 134,863, of whom 53,843 were tried under the Indian Penal Code and 81,020 under other laws. Of every hundred persons convicted, acquitted or discharged 66 were convicted; in cases under the Indian Penal Code 48; and in cases under other laws 77; the corresponding figures for the previous year were 65, 47 and 77.

The number of cases disposed of by Stipendiary Magistrates sitting singly (excluding District Magistrates) fell from 52,166 to 50,386 and by District Magistrates again from 619 to 547 and 12 cases were tried by additional District Magistrates; of cases tried by Magistrates exercising special powers under section 30, Criminal Procedure Code, from 2,047 to 1,860, of which only 209 were disposed of by District Magistrates. Comment was again made on the small number of cases tried by District Magistrates. The number of magistrates exercising the special powers referred to above at the close of the year rose from 26 to 37 and the Honourable Judges were of opinion that additional District Magistrates to try important criminal cases should be appointed in the heavier districts. The number of cases disposed of by Benches of Honorary Magistrates fell from 28,466 to 27,242, and by those in Rangoon alone from 21,151 to 19,383 affecting 27,443 persons. The relief given by the Honorary Magistrates to the Stipendiary Magistrates was as usual very great and deserved the gratitude of the community.

The number of cases before the courts in which proceedings were taken with a view to demanding security for keeping the peace and for good behaviour were 114 involving 147 persons of whom 126 were convicted and 1,244 involving 1,249 persons of whom 962 were convicted, respectively; the corresponding

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figures for the previous year were 45, 66 and 61 and 1,814, 1,840 and 1,473, respectively; the decrease in proceedings taken with a view to demanding security for good behaviour is remarkable. The number of cases before the courts of maintenance under Chapter XXXVI of the Criminal Procedure Code fell from 1,699 involving 1,688 persons, of whom 982 were ordered to make allowances, to 1,627 involving 1,625 persons, of whom 912 were ordered to make allowances. The number of cases committed to sessions during the year of report fell from 560 to 535; the number of persons under trial from 984 to 965; and the percentage of convictions of persons fell from 59·49 to 55·84 which seemed to show that many persons were committed who ought to have been discharged by the committing Magistrate. It was also observed that District Magistrates and Sessions Judges sometimes failed to exercise a proper discretion in refusing to engage counsel for indigent persons accused of murder and the Local Government has since issued more stringent orders on this point.

The number of cases committed to the Chief Court remained the same, 40, as in the previous year, but the number of persons concerned fell from 67 to 45. The number of cases disposed of rose from 38 involving 66 persons of whom 43 were convicted to 44 involving 49, of whom 33 were convicted, and the percentage of convictions rose from 65·15 to 67·35.

The average duration of all criminal cases remained at the same record figure as in the previous year, 15 days, in spite of a fall from 4 to 3 days in that of cases tried by Benches of Honorary Magistrates, who disposed of considerably more than a third of the number of cases on which the average is calculated. The figure for Stipendiary Magistrates, sitting singly, who deal with the great bulk of the more important cases, showed a further increase from 20 to 21, that for those in the Pyapôn and Pegu Districts being 26 and 25, respectively. The chief reason given was the increase in executive work owing to the war—as most of the Stipendiary Magistrates are also executive officers—but it was observed that judgments were sometimes unnecessarily reserved, that opportunity to frame charges in warrant cases at an early stage of the proceedings was not always taken, that adjournments were wrongfully given and that witnesses were in many districts not bound down by the police to appear before the Magistrate on a fixed day. There was however a decrease in duration in Courts of District Magistrates from 32 to 27 and in Courts of Sessions from 59 to 58. The average duration for the whole of Lower Burma remained the same, 15 days, as in the previous year. The number of witnesses examined fell from 333,178 to 302,205.

In Upper Burma the number of cases brought to trial fell from 29,574, of which 12,736 were under the Indian Penal Code and 16,838 under other laws, to 29,115, of which 12,061 were under the Indian Penal Code and 17,054 under other laws. The number of persons under trial during the year fell from 52,094, of whom 20,903 were tried under the Indian Penal Code and 32,091 under other laws to 49,688, of whom 19,608 were tried under the Indian Penal Code and 29,990 under other laws. Of every hundred persons convicted, acquitted or discharged, 62 were convicted; in cases under the Indian Penal Code 43; and in cases under other laws 74; the figures for the previous year were 59, 43 and 70. The highest percentage of convictions, 89, was obtained in the Putao District; for the Ruby Mines, Bhamo and Mandalay Districts the figures were 78, 78 and 77, respectively.

The number of cases disposed of by Stipendiary Magistrates, sitting singly, excluding District Magistrates, fell from 20,725 to 19,609; by District Magistrates fell from 311 to 289; and by Benches of Magistrates rose from 7,512 to 8,275. The number of cases before the Courts in which proceedings were taken with a view to demanding security for keeping the peace and for good behaviour rose from 35 involving 72 persons, of whom 65 were convicted, to 39 involving 56, of whom 30 were convicted, and fell from 753 involving 773 persons, of whom 593 were convicted, to 519 involving 536 persons, of whom 404 were convicted, respectively: there was thus, as in Lower Burma, a large decrease in the latter. The number of cases committed to sessions rose from 110 involving 237 persons to 126 involving 250; the number disposed of fell from 150 involving 225

persons to 142 involving 231; and the percentage of conviction again fell from 70 to 67.

The average duration of cases for Stipendiary Magistrates sitting singly and for all Courts in Upper Burma remained the same, 15 and 12 days, respectively, as in the previous year. The total number of witnesses examined fell from 101,736 to 91,322.

The number of British European subjects tried during the year in the whole of Burma rose from 42 to 43, but the number convicted fell from 30 to 29.

Punishments.

50. In Lower Burma the number of death sentences referred to the Chief Court for confirmation fell from 116 to 111, in 61 of which the sentence was confirmed, in 17 reversed, and in 26 altered or reduced. One man was sentenced to death by the Chief Court sitting as a Court of Sessions. The number of persons sentenced to death thus fell from 76 to 62. The number of persons sentenced to transportation decreased again from 425 to 376; that of persons sentenced to rigorous imprisonment fell from 14,567 to 13,626; to simple imprisonment from 3,137 to 2,394; and to imprisonment for 15 days or under from 3,999 to 3,322. The Honorary Magistrates in Rangoon passed sentences of imprisonment till the rising of the Court in 1,816 cases, or 827 less than last year, and in the districts also a large proportion of the sentences of imprisonment for periods under 15 days were of this nature. The number of sentences of whipping rose from 1,722 to 1,773; there was a remarkable increase in the Bassein District, where this punishment was awarded as an experiment in suitable cases of cattle theft. The number of illegal sentences of whipping rose from 8 to 18. The number of persons sent to jail in default of security for good behaviour fell from 1,034 to 674—still a large proportion of those, 1,321, ordered to furnish security. The practice of the District Magistrate, Thayetmyo, of reviewing at the beginning of rains (the ploughing season) the cases of all such persons was commended by the Honourable Judges.

The amount of fines imposed fell from Rs. 6·12 lakhs, of which Rs. 5·29 lakhs was realised, to Rs. 5·77 lakhs, of which Rs. 5·28 lakhs was realised. Fifty-four complainants were ordered to pay compensation under section 250, Criminal Procedure Code, and the amount paid by way of compensation under section 545 fell from Rs. 27,348 to Rs. 26,607. There was a satisfactory increase in the number of persons released on probation under section 562 of the Criminal Procedure Code from 914 to 1,090; of youthful offenders discharged after admonition from 6 to 28; and of youthful offenders delivered to parents or guardians from 16 to 31; and the number of boys committed to detention in a Reformatory fell from 19 to 14.

In Upper Burma the number of persons sentenced to death fell from 25 to 23; to transportation rose from 88 to 100; to rigorous imprisonment fell from 3,414 to 2,950; to simple imprisonment rose from 245 to 273; to whipping fell from 700 to 596; and to imprisonment in default of security for good behaviour rose from 167 to 178. The number of persons sentenced to imprisonment for 15 days or less rose from 500 to 558, many of whom were sentenced till the rising of the Court.

The amount of fines imposed fell from Rs. 2·57 lakhs, of which Rs. 2·29 lakhs were realised, to Rs. 2·32 lakhs, of which Rs. 2·15 lakhs were realised, and the amounts paid as compensation under section 250 and section 545, Criminal Procedure Code, fell from Rs. 1,695 to Rs. 1,287 and from Rs. 19,477 to Rs. 19,213, respectively.

Appeals.

51. In Lower Burma the number of persons who preferred appeals against convictions fell from 9,370 to 8,334. The appeals before the Chief Court fell from 1,235 to 1,026; before Courts of Sessions from 5,688 to 5,033; and before Courts of District Magistrates from 1,078 to 934. The number of appellants before District Magistrates and Magistrates empowered under section 407, Criminal Procedure Code, fell from 1,545 to 1,404. The Local Government preferred appeals against the acquittals of 81 persons and in the case of 20 was successful: the corresponding figures for the previous year were 63 and 1, 62

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pending trial. The percentage of confirmation of sentences for all Appellate Courts fell from 70·41 to 68·87, and for the Chief Court alone from 73·76 to 70·20. The average duration for all Appellate Courts rose from 22 days to 26; for the Chief Court alone, owing to the fact that only three Judges were available for appellate work during a great part of the year, from 37 to 52; and for Sessions Courts, which deal with most of the appeals, from 21 to 24; but it fell in the Courts of District Magistrates from 11 days to 9.

In Upper Burma the number of appeals preferred fell from 2,538 to 2,345; it rose in the Court of the Judicial Commissioner from 209 to 288, but fell in the Courts of Sessions from 1,352 to 1,164 and in Courts of District Magistrates from 977 to 955. The percentage of confirmations for all Appellate Courts rose from 56 to 60; in the Court of the Judicial Commissioner it fell from 69 to 66; but it rose in the Courts of Sessions from 54 to 62 and in the Courts of District Magistrates from 56 to 56·22. The average duration of appeals in all Courts rose from 13 days to 16; in Sessions Courts it remained unchanged, 12; and in Courts of District Magistrates it rose from 10 to 12.

The Local Government preferred appeals against acquittals in the cases of 12 persons, in 8 of which it was successful; there were no such appeals in the previous year.

Revisions.

52. In Lower Burma the number of cases dealt with on revision by District Magistrates showed a satisfactory increase from 6,760 involving 11,698 persons to 6,950 involving 13,320; the number of persons regarding whom further inquiry was ordered fell from 252 to 204 and of cases referred to the Chief Court rose from 108 to 157. The number of persons whose cases came before Sessions Judges on revision showed a satisfactory increase from 3,862 to 4,287; the number in whose cases further inquiry was ordered fell from 35 to 19 and the number whose cases were referred to the Chief Court from 178 to 159. The number of cases called by the Chief Court on its own motion fell from 831 affecting 1,094 persons to 653 affecting 1,033, and of cases referred and applications for revision from 383 affecting 605 persons to 341 affecting 574. In the cases of 1,175 persons the orders of Lower Courts were confirmed and in 243 reversed; the sentences of 26 persons were enhanced and of 79 reduced and new trials were ordered in the cases of 16 persons; the figures of the previous year were 1,644, 217, 39, 94 and 36, respectively.

In Upper Burma the number of cases dealt with by District Magistrates on revision fell from 5,104 to 3,549; the number of cases called on revision by them under the Upper Burma Criminal Justice Regulation was 1,995 and otherwise 1,624, the percentages of confirmation being 94 and 92, respectively. The number of persons whose cases were dealt with on revision by Sessions Courts fell from 3,001 to 1,625; in the cases of 1,413 the sentence or order was confirmed and in the case of 30 reference was made to the Judicial Commissioner. The number of persons whose cases were dealt with on revision by the Judicial Commissioner rose from 1,679 to 1,704; in the cases of 1,385 the sentence or order was confirmed, of 3 the sentence was enhanced, of 53 reduced or otherwise altered and of 197 reversed, and in the cases of 10 further trial was ordered.

Prisons.

Accommodation.

53. Accommodation for 17,067 males was provided in the prisons of the Province in the year 1917, an increase of 598, and for 320 females, the same as in the previous year. Increased accommodation was provided for 62 convicts at Rangoon by palisading the lower floors of two wards; for 520 by the opening of the Extramural Jail at Maymyo; and for 16 by increasing the accommodation for male undertrial prisoners at Magwe.

Owing to the general reduction in the jail population in the Province, the original intention of increasing the accommodation at Insein by the construction of two wards for 448 prisoners each, was reconsidered and it was decided that one ward only should be built, the space provided for the second ward being reserved for the erection of a special isolation ward for tubercular patients.

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For the first time for many years past, the daily average number of prisoners of all classes, 16,786, was less—by 601—than the number for which accommodation was available. This was partly due to the conditional releases made in connection with the various schemes of ticket-of-leave labour, namely road-making under the Public Works Department and work in the Wolfram Mines at Tavoy, jungle-clearing and path-making under the Forest Department, work under the Survey of India in the Mergui and Tavoy Districts, and surveying of mines under the Land Records Department in the Tavoy District. One prisoner was also conditionally released to work under the Agricultural Department. In all 816 were thus released. The total accommodation for undertrial and civil prisoners taken collectively was well above requirements.

Prisoners.

54. The year opened with a population of 17,465 prisoners of all classes; 40,655 were received and 42,158 were discharged, so 15,962 were left in confinement at the close of the year—the corresponding figures for 1916 being 18,285, 43,197, 44,017, and 17,465. The daily average population of all classes declined from 18,020 to 16,786 and is the lowest on record since 1914. The number of juveniles under 16 years of age admitted into jail rose from 57, of whom 5 were girls, to 59, of whom 2 were girls; 307 juveniles, 34 more than in 1916, were sent to the jails to be whipped. The percentage of reconvicted prisoners again rose from 27·29 to 29·27, the highest figure appearing at Taungdwingyi (53·30), Myaungmya (41·20) and Myanaung (41·10); and the lowest at Mogôk (9·32); the figure for the Juvenile Jail at Meiktila was again nought. The number of youthful offenders under 15 years of age was 17, 2 less than in 1916; of these, the number previously convicted was only 1, 2 less than in 1916; 4 out of the 17 sent to jail were transferred to the Reformatory School at Insein. Of the prisoners admitted for punishment during the year of report, 18,569, together with those previously admitted but remaining in Jail on the last day of that year, 141 were sentenced to death, 432 to transportation beyond seas, 240 to simple imprisonment, 17,131 to rigorous imprisonment, 596 to rigorous imprisonment with solitary confinement, and 29 to rigorous imprisonment with whipping; the corresponding figures were 21,649, 139, 465, 387, 19,751, 873 and 34, respectively, in the previous year. Of the 18,569, 85 per cent. were Buddhists, 5·5 Hindus (including Sikhs), 4·8 Mahomedans, and 0·5 Christians. The identification of habitual prisoners was effected before conviction in 5,150 cases, and in Jails in 117 cases; the figures were 5,615 and 20, respectively, in the previous year. The number of prisoners classified as "habitual" by District Magistrates or Magistrates specially empowered was 7: it was nought in the previous year.

Discipline.

55. The total number of offences committed by convicts, including those dealt with by Criminal Courts, again declined from 28,723 to 22,785. As in the preceding year, the decrease occurred under all heads, but is most noticeable under "offences relating to work" and "all other breaches of Jail rules." Penal diet, as a form of punishment, was awarded in 1,434 cases, 647 less than in 1916. Of the few serious assaults, only one, as in the previous two years, terminated fatally. The number of whippings was 69, 12 less than in 1916. At the Rangoon Jail, there was no occasion to resort to corporal punishment, although it was inflicted in 24 cases in 1916. Seven convicts, one more than in 1916, escaped from custody, 4 from inside and 3 from outside the Jail. Of those who escaped 6 were recaptured before the close of the year. A percentage of 60·48 of the total punishments was awarded to habituals, who formed 43·95 per cent. of the daily average convict population—these figures show slight increases over those of last year. The number of punishments, 9,259, inflicted on convict officers during the year shows a further decline from that of 1916 (9,419) and that of 1915 (10,581) and their work and conduct were generally satisfactory.

Financial.

56. The total expenditure incurred in guarding and maintaining prisoners in the jails of the Province rose from Rs. 11,45,148 to Rs. 11,63,227 and the gross cost per prisoner from Rs. 66-1-9 in 1915 and Rs. 63-8-9 in 1916 to Rs. 69-4-9. The nett cost per prisoner rose from Rs. 51-1-9 to Rs. 57-8-9.

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The nett cash earnings of convicts sentenced to labour made during the year amounted to Rs. 1,96,922—the lowest sum recorded since 1914. The decline was due to various causes. The quantity of vegetables consumed by the prison population fell from 1,748 tons to 1,639. The value of vegetables grown in the jails over and above requirements and sold rose from Rs. 10,495 to Rs. 12,741, owing to the fall in the population of the jails. The value of farm produce, other than vegetables, grown rose from Rs. 32,754 to Rs. 36,673. Experiments in the cultivation of jute were undertaken during the year, and samples of the fibre produced were sent to the Commissioner of the Irrawaddy Division (who is interested in the subject) at his request. The Deputy Director of Agriculture, Southern Circle, Burma, visited the jail grounds at Myaungmya, and his advice on the cultivation of jute, etc., is being followed. The estimate of the value of prison labour supplied to the Government Jail Press and to the Public Works Department for which no credit is taken by the Prison Department rose from Rs. 79,853 to Rs. 1,13,736.

Vital.

57. The ratios per thousand of average jail population of admissions to hospital (236·51) and of daily average number sick (15·19) were lower, while those of deaths from all causes except cholera (18·71) and of deaths from all causes both in and out of hospital (19·00), were slightly higher than in the previous year for which the figures were 301, 17·04, 17·70 and 17·70, respectively. The total number of deaths, 319, was the same in both years, but, as the daily average number of prisoners in confinement was 1,234 less than in 1916, the death-rate for the year of report was correspondingly higher. The conditional release of a considerable number of healthy prisoners tended also to raise the rate of mortality. There were 7 cases of cholera during the year (6 at the Rangoon and 1 at the Bassein Jail), of which 5 (all at Rangoon) proved fatal. At eleven Jails, *viz.* Kyaukpyu, Sandoway, Ma-ubin, Mergui, Maymyo, Katha, Shwebo, Kindat, Pagan, Taungdwingyi and Meiktila, there were no deaths during the year. Of the Central Jails Rangoon had the highest death-rate, 46·58 per thousand; and among the District Jails, Tavoy, 43·48 per thousand. The highest percentages of opium consumers were returned by the jails at Akyab (37·63), Katha (37·40), Kyaukpyu (32·08), Kindat (28·43), Bhamo (28·42) and Mogôk (26·71). Of the 319 prisoners who died, 60, one more than in 1916, were addicted to opium. Morphinism accounted for only 5 deaths and so showed a decline. While the abuse of morphine and cocaine is still prevalent, there is no doubt that, as a result of the war, this vice is far less common in Rangoon than it was, and cases of injection of the worst kind were comparatively few.

Miscellaneous.

58. The Juvenile Jail at Meiktila was conducted on the same system as in previous years except that "A" class juvenile prisoners who had not yet reached their nineteenth birthday, were sent there after due enquiry had been made into their previous life and conduct. The daily average number of convicts continued to decline, being only 60, 21 less than in 1916 and 50 less than in 1915, but the number remaining in the jail on the last day of the year was 85, 38 more than at the end of 1916. The general management of juvenile prisoners was at no time found to be difficult. On admission prisoners are thoroughly instructed in the rules of the jail. Their conduct on the whole was quite satisfactory and they gave very little trouble. Ten youths, one less than in 1916, earned special remission for being free of punishment for a year. As the result of regular exercise, the boys increased in weight and kept good health. The handicrafts in which instruction was given to youths sentenced to long terms, were carpentry, slipper-making, cane work, timber-sawing and blacksmithy. Those sentenced to short terms were usually employed on gardening. As in previous years, the grinding of unhusked rice, a somewhat severe form of labour, was reserved as far as possible for the juveniles in the penal grade. No tools were given to any prisoners released during the year as it has been found that they do not as a rule after release follow the trades they were taught in jail. The introduction of a practical training in husbandry was considered and twenty-three acres of land, not far from the Juvenile Jail, were acquired for the purpose, and it is hoped that an agricultural

farm, conducted under the supervision of an expert, will soon be an accomplished fact. In the Vernacular School, with its staff of two masters, the boys were taught up to the 5th standard only, as those in the 6th and 7th standards were released. The maximum number attending school on any one day was 81, 10 less than in the previous year; the decrease was due to the fall in the daily average convict population. A Buddhist monk visited the Jail and held 51 services; his discourses chiefly consisted of advice to reform and encouragement to lead an honest life after release, and were attentively listened to and appreciated by the boys.

The scheme of manual training, for young convicts, continued to be carried out at all the seven Central Jails and at three District Jails. It is of interest to note that during the year a young habitual convict with an aptitude for geometry and drawing, was trained as a draughtsman, and on release found employment as such in a Government workyard where he is doing well. Before coming to Jail he had no previous training or experience in drawing. During the year 19 sets of carpenters' tools in Rangoon and 10 in other jails were given to young prisoners on their release. Many such prisoners expressed no desire for tools and most of them preferred to return to their hereditary agricultural life, and so the giving of tools is of doubtful utility—except perhaps in a large centre of industry, like Rangoon.

The annual examination of the juvenile school at the Rangoon Central Jail was conducted by the Education Department on the 16th of January, 1918. Twelve pupils were presented; 7 for the Kindergarten, 3 for the 1st standard and 2 for the 2nd standard, and the passes were 6, 3 and 1, respectively.

The importance of separating the habitual and the casual prisoner was fully recognized by Superintendents of Jails and no effort was spared to achieve this end. The examination of some jails with a view to removal of the habitual prisoners resulted in transfers of habitual prisoners from the jails at Myanaung, Paungdè, Bhamo, Katha, Shwebo, Magwe and Taungdwingyi to others such as Henzada, Insein, Thayetmyo, Mandalay and Myingyan, the few that could not be sent being accommodated in cells, etc. It is hoped that it may be found possible to extend this plan to other small jails. An improvement was made in separating the European prisoners in the Rangoon Jail more effectually from the others.

The number of convicts released during the year who gained remission rose from 5,694 to 5,869 and of those to whom extra or special remission was awarded from 3,025 to 3,835. Twenty-six prisoners, whose sentences were remitted, were sent during the year to the Salvation Army Industrial Institute at Kemmendine, which had been established in the previous year. None of these prisoners were sent back to Jail for reconfinement on account of bad behaviour, but 3 prisoners, out of the number (28) sent in the previous year, were returned. This institution continued to do useful work.

At the beginning of 1917, the Inspector-General of Prisons was deputed to India to visit certain Jails in other provinces. Bengal, Bihar and Orissa, the United Provinces, the Punjab, Bombay and Madras were visited, and the information thus obtained was placed at the disposal of the Local Government. The arrangements for the imprisonment of women were found to be better in those provinces than in Burma.

The year was marked by new methods of dealing with the large prison population, namely, conditional release on different forms of employment and the establishment of an Extramural Jail at Maymyo for construction work under the Public Works Department. Towards the end of the year, the enrolment of the 12th Jail Porter Corps, for service in Mesopotamia, was begun.

No change took place in the number of subsidiary jails.

Civil Justice.

Courts.

59. The administration of Civil Justice in Lower Burma is under the control of the Chief Court sitting in Rangoon and in Upper Burma of the Court of the Judicial Commissioner of Upper Burma sitting in Mandalay. The former

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consists of five judges, but in order to relieve the congestion of work, chiefly on the Original Side, an additional judge was appointed for one year with effect from the 1st of November 1917, and of the six judges two sat regularly on the Original Side. The pressure of criminal work in the Bassein Division necessitated the appointment of an additional Divisional and Sessions Judge for short periods during the year, and the appointment of Additional District Judge, Tavoy, was continued almost throughout it. A subdivisional court was constituted at Akyab with effect from the 1st of July, 1917, to relieve the District Court of suits valued between Rs. 500 and Rs. 3,000 arising within the subdivision and was invested with the jurisdiction of a court of small causes for suits valued at not more than Rs. 200 arising within the Akyab Township, while the township court of Akyab ceased to be a small cause court. The township courts in the district were arranged in four groups:—Akyab and Rathedaung; Pônnagyun and Myohaung; Minbya and Pauktaw; Buthidaung and Maungdaw; with one judge presiding in both the courts of each. The Township Officer of Pauktaw was thus relieved of all civil judicial work. The last group had had only one judge previous to the year of report. The appointment of a second additional judge for the Court of Small Causes, Rangoon, was sanctioned with effect from the 1st of March 1917. The constitution of the new Labutta Township (see paragraph 2) led to changes in the jurisdictions of the courts in the neighbourhood and a separate court for the new township was not made. The township courts of Twante, Kungyangôn, Syriam, Kyauktan, Thôngwa, Kayan, Insein, Hlègu, Taikkyi and Tantabin were invested with the jurisdiction of small cause courts in suits to the value of Rs. 50 arising within the respective townships.

There was no change in the number or jurisdiction of civil courts in Upper Burma during the year.

Suits.

60. There was a remarkable decrease from 50,783 in 1916 to 43,406 in the year of report in the number of suits instituted in Lower Burma which was shared by all classes of courts except divisional courts in which the number rose from 2 to 4, the Small Cause Court, Rangoon, in which it rose from 8,449 to 8,525 and the Chief Court in which it rose from 327 to 369. The decrease was most marked, however, in the township courts where the number fell from 33,000 to 26,044 and it was ascribed to various causes, the depression in trade and consequent decline of the money-lending business, the disinclination of money-lenders to lend except on sound security and their readiness to compromise, the passing away of the nervousness prevalent in the first years of the war when creditors rushed to the courts to realise their debts, the scarcity of money and more frequent payments in kind, usually in grain. The decrease in suits for money or movable property from 45,805 to 39,022 was shared by all districts (except the unimportant district of Salween) and was specially great in Akyab, where the Bank of Bengal continued its policy of restricting credit and calling in loans, and in the Henzada, Toungoo, Pegu, Ma-ubin and Myaungmya Districts. Suits for immovable property fell from 1,455 to 1,309. Large decreases occurred in the Ma-ubin, Insein, Myaungmya and Akyab and slight increases in the Amherst, Henzada and Tharrawaddy Districts. Mortgage suits fell from 2,116 to 1,720. The chief decreases occurred in the Akyab, Thayetmyo, Prome, Henzada and Bassein Districts, but those of Hanthawaddy, Insein and Pyapôn showed small increases. In spite of a change in classification made during the year, by which suits for specific relief include those for declaration of title to property, the number of such suits fell from 688 to 674. Matrimonial suits continued to decline and fell from 440 to 424.

The value of the suits instituted in Lower Burma during the year, however, rose from Rs. 1,49 lakhs to Rs. 2,00 lakhs. The value in township courts fell from Rs. 39 lakhs to Rs. 32 lakhs, and in district courts rose from Rs. 44 lakhs to Rs. 56 lakhs and in the Chief Court from Rs. 22 lakhs to Rs. 70 lakhs, chiefly on account of a single probate matter valued at Rs. 32 lakhs, which was contested in a regular suit. In the district courts of Akyab, Hanthawaddy and Amherst there were increases in value of Rs. 2 lakhs, Rs. 3·5 lakhs and Rs. 10 lakhs, respectively.

The number of suits disposed of fell from 51,232 in 1916 to 44,821 in the year of report. The percentage of contested suits was 23·39 and the plaintiff was successful in 69·8 per cent. of these; the percentage of suits decreed on confession was 23·48 and of suits decreed *ex parte* 26·42. These figures differ little from those of the previous year, which were 23·02, 70·1, 24·3 and 25·8, respectively. Only 41 cases were referred to arbitration. The number of cases pending at the close of the year fell from 5,816 to 5,016, and of those which had then been pending over three months from 2,247 to 2,178. The decrease was common to nearly all classes of courts, but there was a slight increase in the Chief Court. The largest decreases were shown by the courts of the Henzada and Akyab and the largest increases by those of the Sandoway and Tavoy Districts.

The average duration of contested cases rose from 79 days in 1916 to 81 in the year of report, but that of uncontested cases, 49 days, remained the same. This increase in duration was ascribed to the delay that commonly occurs in serving summonses, especially on defendants residing in India, for which both the indifference of plaintiffs and the dilatoriness of the courts to which summonses are forwarded for service, are responsible: frequently, adjournments were given even when summonses were issued for final disposal; moreover, subdivisional and township judges, who are also executive officers, had extra work imposed on them by the war; in some cases it was feared the judge did not take enough care in the initial stages to ascertain the real issues between the parties or try to avoid adjournments.

In Upper Burma also the number of suits instituted fell from 21,310 to 18,085, and all districts except Pakôkku shared in the decrease, but it was most marked in the Myingyan, Yamèthin, Meiktila, Magwe and Shwebo Districts, and was ascribed to the constriction of business owing to the war. The number of suits for money or movable property fell from 19,440 to 16,157, large decreases occurring in the Myingyan, Yamèthin, Meiktila, Magwe and Mandalay Districts; for immovable property rose from 562 to 646, large increases occurring in the Mandalay, Minbu and Magwe Districts; for mortgages (which on agricultural land were all as in the previous year usufructuary) rose from 556 to 590; and the number of matrimonial suits continuing to decline fell from 408 to 369. The number of suits for and connected with immovable property rose, and is likely to continue to rise, owing to a recent ruling of the Judicial Commissioner, under which many suits regarding State land, which used to be tried by revenue courts, must now be tried by civil courts.

The value of the suits instituted rose from Rs. 29 lakhs to Rs. 32 lakhs. Large increases of Rs. 1·9 lakhs, Rs. 1·6 lakhs and Rs. 1·5 lakhs occurred in the Magwe, Ruby Mines and Mandalay Districts, respectively, and a decrease of about half a lakh of rupees in each of the Pakôkku, Myingyan and Sagaing Districts. The increase in the Magwe District was due chiefly to a single suit for the recovery of oil-wells. The number of suits disposed of fell from 21,531 to 18,147, large decreases occurring in the Myingyan, Yamèthin, Sagaing and Magwe Districts. The percentage of contested suits was 22·25 and the plaintiff was successful in 67·4 of these; the percentage of suits decreed on confession was 29·25 and of suits decreed *ex parte* 14. These figures differ little from those of the preceding year which were 23·6, 67·8, 30·2 and 13·8, respectively, and except the last are very near those of Lower Burma. Only 34 cases were referred to arbitration. The number of cases pending at the close of the year rose from 2,197 to 2,256, and of those which had been pending over three months from 662 to 836 and these figures show a remarkable contrast with those for Lower Burma. In Upper Burma the separation of judicial and executive functions has made little progress and the war, which largely increased the executive work of officers, thus tended to retard the disposal of civil judicial work.

The average duration of contested cases rose from 80 to 84 days and of uncontested cases from 41 to 46, and the increase may be attributed to the same causes as the increase in pending cases.

Many civil suits of a value not exceeding Rs. 20 are tried both in Upper and Lower Burma by village headmen, so the figures given above do not quite represent the whole civil litigation of the Province (see paragraph 45).

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The number of miscellaneous cases disposed of in the courts of Lower Burma fell from 6,308 to 5,901 and the average duration rose from 54 to 55 days. A tendency was observed to attempt to use the provisions for appointing a Receiver to evade the order forbidding the attachment before judgment of agricultural produce in the possession of agriculturists. In Upper Burma the number of miscellaneous cases disposed of fell from 2,079 to 1,789 and the average duration rose from 64 to 74 days.

The number of applications for execution disposed of by the courts of Lower Burma fell from 33,445 to 32,118 and the amount realised rose from Rs. 22·45 lakhs to Rs. 22·70 lakhs. A satisfactory feature of the returns was the decrease from 675 to 629 of judgment-debtors imprisoned and from 2,091 to 1,766 of judgment-debtors arrested, but released without imprisonment. Sales of movable property fell from 1,045 to 1,008 and of immovable property from 1,749 to 1,740, and the percentage of applications dealt with, otherwise than by transfer, wholly or partly successful, from 43·70 to 43·02.

In Upper Burma the number of applications for execution disposed of fell from 11,149 to 10,374 and the amount realised rose from Rs. 4·68 lakhs to Rs. 4·97 lakhs. The amount realised in 1916, Rs. 4·68 lakhs, had been the lowest for ten years. As in Lower Burma there was a remarkable decrease in the number of judgment-debtors imprisoned from 112 to 80 and of judgment-debtors arrested, but released without imprisonment, from 1,075 to 682. Sales of movable property fell from 409 to 359 and of immovable property from 413 to 404, and the percentage of applications dealt with otherwise than by transfer, wholly or partly successful, from 47·7 to 47·4.

Six hundred and twenty-one applications under the Provincial Insolvency Act were made in Lower Burma, of which 371 came from debtors who had been arrested, 235 from debtors who had not been arrested and 15 from creditors. The figures of the previous year were 597, 375, 216 and 6, respectively. The number disposed of rose from 615 to 635, 29 were withdrawn, 151 dismissed, in 455 cases adjudication orders were made, and in 91 of these Receivers were appointed. In Upper Burma the number of applications made fell from 283 to 228 and the number disposed of from 282 to 243, 13 were withdrawn and 93 dismissed, in 137 cases adjudication orders were made, and in 22 of these Receivers were appointed. The benefit of the Act continued to be sought by debtors in Lower Burma with a view to avoid imprisonment, and misunderstanding of its provisions was again noticeable in Upper Burma, where applications for adjudication were frequently refused on improper grounds.

Appeals.

61. The number of appeals preferred in district courts of Lower Burma against decrees of township courts rose from 1,701 to 1,708, in spite of the fall in the number of suits filed during the year, and the average duration fell from 54 to 53 days. The percentage of confirmations was 60, of modifications 10, of reversals 27, and of remands 3; the figures for the previous year were 64, 8, 25 and 3, respectively. The number of appeals disposed of rose from 1,653 to 1,736, and the number pending at the close of the year fell from 275 to 247. It was observed that insufficient use was made of the provisions of Order 41, Rule 11, regarding summary dismissal of appeals.

The number of appeals preferred in divisional courts rose from 363 to 365 and the number disposed of from 406 to 415, and the average duration fell from 147 to 113 days. The percentage of confirmations was 65, of modifications 11, of reversals 21, and of remands 3, the figures of the previous year were 63, 14, 20 and 3 respectively.

The number of miscellaneous appeals in the district and divisional courts rose from 145 to 150 and 108 to 110, respectively, and the number pending at the close of the year in the former fell from 15 to 14 and in the latter remained the same, 20.

In Upper Burma the number of appeals, which came before district courts during the year, fell from 1,813 to 1,571; the number disposed of fell from 1,457 to 1,296; and the average duration rose from 78 to 86 days. It was remarkable that in the Lower Chindwin District 755 suits and only 37 appeals were instituted, while in Kyauksè the corresponding figures were 704 and 95. The

number of appeals which came before divisional courts rose from 29 to 32, the number disposed of from 17 to 18, and the average duration from 78 to 131 days.

The number of miscellaneous appeals before the district and divisional courts fell from 164 to 155 and of those disposed of from 133 to 123.

The appellate work of the Chief Court of Lower Burma and of the Court of the Judicial Commissioner, Upper Burma, is described in the next two paragraphs, which deal with these courts.

The Chief Court of Lower Burma.

62. One of the judges of the Chief Court was on deputation on a special tribunal at Mandalay from the 26th of March to the 9th of July 1917. The first Burmese judge of the Chief Court, Mr. Justice Maung Kin, was appointed permanently with effect from the 24th of July 1917. During the year of report judges sitting singly disposed of 354 original suits, 337 applications for execution of decrees and 220 miscellaneous cases; benches of two judges of 73 regular and 58 miscellaneous appeals, 5 second appeals, 8 revisions and 23 miscellaneous applications; full benches of three judges of two civil references under Section 17 of the Indian Divorce Act; and a full bench of four judges of one civil reference under Section 11 of the Lower Burma Courts Act.

The number of suits instituted during the year rose from 327 to 369, and, partly owing to a probate suit valued at Rs. 31·6 lakhs, their aggregate value rose from Rs. 21·7 lakhs to Rs. 69·6 lakhs. In spite of the deputation referred to above the number of suits disposed of on the Original Side during the year rose from 320, of which 33 per cent. were contested, to 354, of which 41 per cent. were contested; but 383 had been disposed of in 1915, of which 48 per cent. were contested. The average duration of contested cases rose from 343 days to 417, but that of uncontested cases fell from 207 to 193; the percentage of contested cases in which the plaintiff was successful fell from 75 to 71. The number of sales of immovable property fell from 45 to 41, but the amount realised rose from Rs. 6·08 lakhs to Rs. 6·87 lakhs. The number of cases disposed of under the Presidency Towns Insolvency Act fell from 222 to 204 and the number remaining pending at the close of the year rose from 105 to 140. Seven of these cases involved 9 persons who were adjudicated on the applications of creditors and 117 involved 200 persons who were adjudicated on their own application; 119 debtors were granted discharge; in 81 cases the applications for discharge were dismissed or the adjudication order was annulled. The miscellaneous business consisted of 25 applications for Probate, 89 for Letters of Administration, 27 under the Guardian and Wards Act, 24 under other Acts, and 55 under the Code of Civil Procedure.

The number of regular appeals instituted increased from 360 to 419. Of these 127 were appeals against original and 292 against appellate decrees. The number of appeals disposed of declined from 619 in 1915 and 387 in 1916 to 354 in the year of report. Several of the cases were very heavy, and for a great part of the year only three judges were available for appellate work, but the arrears were subsequently reduced to normal. The average duration of first appeals rose from 315 to 384 days, but that of second appeals fell from 250 (which was the lowest figure since 1910) to 239. The number of miscellaneous first appeals disposed of rose from 61 to 64 and the duration from 160 to 173 days. The decrees of lower courts and of the Original Side of the Chief Court were confirmed in 66·7, reversed in 20·9, modified in 8·8 and remanded in 3·7 per cent. of the appeals disposed of. The percentage of confirmation was 68·5 in 1916 and 64·1 in 1915. The percentage of confirmation in appeals against original and appellate decrees fell from 60·6 to 56·4 and from 71·6 to 71·3, respectively, and 16·7 per cent. of the appeals of all kinds disposed of were dismissed summarily under Order 41, Rule 4, of the Civil Procedure Code. The number of revisions disposed of rose from 186 to 205 and the percentage of confirmation fell from 82·3 to 77·6 and that of summary rejections from 58 to 48. There were 14 appeals before the Privy Council, of which four were decided and one was withdrawn during the year. Nine were thus left pending.

CHAP. III.—PROTECTION. The Court of the Judicial Commissioner, Upper Burma.

63. The Additional Judge of the Court of the Judicial Commissioner, Upper Burma, was absent from the 23rd of April till the 31st of August on duty on the Special Tribunal in Mandalay. The court disposed of no original suits or miscellaneous or execution cases during the year of report and had one miscellaneous case pending at its close. The number of appeals from original and appellate decrees together before it for disposal fell from 727 to 659, the number disposed of from 484 to 446 and the average duration from 205 to 245, and the percentage of confirmation rose from 63 to 66. The number of revisions before the court fell from 455 to 432, the number disposed of rose from 295 to 331, the average duration fell from 208 to 181 days, and the percentage of confirmation rose from 73 to 80. The court also disposed of 63 miscellaneous appeals and applications or 4 less than in the previous year.

General.

64. The number of inspections of courts was on the whole adequate in Lower Burma, except in the Ma-ubin and Tharrawaddy Districts, but a decline was again observed in Upper Burma. In Lower Burma one advocate of the Chief Court of Lower Burma and 3 first grade, 8 second grade and 7 third grade pleaders were admitted, and the certificates of 15 first grade, 121 second grade and 426 third grade pleaders were renewed during the year. The fact that only one advocate was admitted was attributed to the stringency of the new rules for admission. In Upper Burma the number of advocates' cases fell from 114 to 112, of which 53 were concerned with admission or promotion, 32 with renewal of certificates and 8 with professional misconduct.

The accommodation of courts was very adversely reported on in both Upper and Lower Burma, and the Judges of the Chief Court made a detailed representation to the Local Government for its improvement in Lower Burma, but the needs of the war and the high price of building materials made the preparation of a comprehensive scheme for the time being impossible.

The combination of civil judicial and executive functions was held to be responsible for delay and inefficiency in civil judicial work in Upper Burma. Proposals for the establishment of a High Court for Upper and Lower Burma and a scheme for the abolition of the divisional courts and the appointment of District and Sessions Judges for Lower Burma were submitted to the Local Government during the year. The valuable help given by advocates and pleaders throughout the Province in recruiting and in popularisation of the War Loan was acknowledged by the Local Government.

Registration.

General.

65. A small change was made in the registration law during the year by the Indian Registration Amendment Act, 1917, which added a new section 23A to the Indian Registration Act, 1908, in order to provide for the re-registration under certain conditions of documents requiring registration, which have been registered, though presented for registration, by persons not duly empowered. Direction 39 was amended to provide for pasting into Register Book IV a spare copy of a document executed on a printed form. A new sub-registration office was opened at Taungtha in the Myingyan District. A special sub-registrar was appointed at Tavoy.

Deeds registered.

66. The total number of compulsory registrations affecting immovable property was 60,514 and the aggregate value of the documents registered was Rs. 7,24,58,472. Both these figures are remarkable as they are the lowest for the five years 1913 to 1917. Those of the other four years show an almost steady rise and those of 1916 were the highest on record.

Instruments of gift of immovable property declined in number from 810 to 657 and in value from Rs. 20·5 lakhs to Rs. 11·5 lakhs.

Instruments of sale or exchange of immovable property of the value of Rs. 100 and upwards declined in number from 31,629 to 25,880 and in value from Rs. 4,84 lakhs to Rs. 3,60 lakhs. The decrease was partly due to the unusually

high figures of the previous year and partly to a lack of ships for export and import trade and partly to the scarcity of money and the depression of trade caused by the war. CHAP. III.—PROTECTION.

Instruments of mortgage declined in number from 39,415 to 31,016 and in value from Rs. 3,57 lakhs to Rs. 2,72 lakhs. The decrease was due to the enhancement by money-lenders of the rate of interest and the difficulty of obtaining loans. There was little capital to invest and the low price of rice did not encourage speculation in land. The recent tendency of creditors to protect unsecured loans by demanding mortgages on land seemed to have ceased. An increase in value in the Tavoy District was attributed to mining activity.

Optional registrations of instruments concerning immovable property rose in number from 164 to 194, but their value fell from Rs. 6 lakhs to Rs. 3 lakhs.

Registrations of instruments concerning movable property fell in number from 8,416 to 7,844, but their value rose from Rs. 56 lakhs to Rs. 81 lakhs.

67. As might be expected from the decrease in operations the income derived from registration fell from Rs. 2,46,287 to Rs. 2,07,205. The expenditure decreased from Rs. 1,16,203 to Rs. 1,13,563 and represented 55 per cent. of the income; the percentage in each of the two previous years was 47. In two districts, Kyaukse and Meiktila, the expenditure was greater than the income. Income and expenditure.

Joint Stock Companies.

68. One hundred and thirteen joint stock companies with an aggregate authorised capital of Rs 10,19 lakhs were working at the end of the year, showing an increase of 8 companies and Rs. 44 lakhs of capital. The number of new joint stock companies limited by shares registered during the year rose from 5 to 9, but their total authorised capital fell from Rs. 92·10 lakhs to Rs. 32·28 lakhs, of which one mining Company alone accounted for nearly half. The number of companies which increased their capital fell from 13 to 12; of companies which reduced their capital, from 3 to 2; of companies which wound up their business, from 6 to 1; and of companies established outside British India which filed their papers under section 277 of the Act, from 5 to 4. The total number of companies now registered is 138. The fees realised during the year fell from Rs. 4,336 to Rs. 3,809. Three societies were registered under the Societies Registration Act of 1860 during the year, bringing the total up to 43. The cost of the separate establishment for dealing with joint stock companies was Rs. 864, the same as in the previous year.

Of the joint stock companies registered during the year of report, 3 were for mining, 2 for planting rubber and other products and one for printing and publishing. The number of private companies relating to joint stock companies increased from 16 to 20.

Local Boards Administration.

69. There are no local boards in Burma. The District Funds in Upper Burma and the District Cess Funds in Lower Burma are administered by the Deputy Commissioners of the districts to which they belong. Some account of their receipts and expenditure is given in Chapter V of this Report.

Municipal Administration.

70. The ordinary income of the Rangoon Municipality for the year rose from Rs. 45·48 lakhs to Rs. 46·31 lakhs. The incidence of taxation and income per head of population rose from Rs. 11-14-10 to Rs. 12-0-3 and from Rs. 15-15-4 to Rs. 16-4-1, respectively. No new tax was proposed or sanctioned during the year of report and the question of imposing a terminal tax on certain classes of goods in order to raise revenue for the municipality was still before the Rangoon Municipality.

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Local Government. The regular periodical revision of assessments of buildings and lands remained under suspension on account of the war, but 967 new properties including five factories were assessed to taxation, a figure which shows a marked increase over that of the previous year, 445, which was abnormally low. Objections were made in 522 cases and the assessments were confirmed in 143 cases, reduced in 364 and enhanced in 15. The number of properties separately assessed to taxation at the close of the year fell from 16,903 to 16,409, but the total monthly assessed value of all buildings and lands (excluding Government, Port Trust and Railway properties) within the municipality rose from Rs. 11·64 lakhs to Rs. 11·77 lakhs and the gross demand of municipal taxes for the year on them from Rs. 28·87 lakhs to Rs. 29·35 lakhs. The contribution received from Government on account of municipal taxes on its properties is 7½ per cent. of the sum of the taxes on private property and fell from Rs. 2·32 lakhs to Rs. 2·21 lakhs. The proposal to assess the property of the Port Commission directly was not carried out and the existing arrangement, by which that body pays a sum calculated on the basis of four per cent. of its ordinary revenue, was adhered to, with the result that the sum received by the municipality fell from Rs. 1·64 lakhs to Rs. 1·58 lakhs. The assessment on Railway property fell from Rs. 1·33 lakhs to Rs. 1·30 lakhs. The revenue received from rates and taxes rose nearly a quarter of a lakh of rupees, the increase being specially marked under the head "Tax on animals and vehicles." The revenue from fees for hackney carriages, from rents from markets and slaughter-houses, from fees for pawnshops and from interest on investments also greatly increased. The ordinary expenditure fell from Rs. 39·93 lakhs to Rs. 36·81 lakhs and the extraordinary expenditure also largely decreased and so the financial position of the Municipality showed considerable improvement at the end of the year of report. More money was spent on water supply, drainage and conservancy and less on sanitary staff, plague measures and roads and the transfer of the control of Anglo-Vernacular Education from the municipality to the Local Government diminished expenditure under public instruction by over a lakh and a half of rupees. The greater part of an excellent site for a new market and additional accommodation for the central fire station were acquired, the former at a cost of seven and the latter at a cost of two lakhs of rupees.

The Fire Brigade suffered from shortage of officers but remained efficient and responded to 55 alarms and attended 56 fires during the year. The figures for the previous year were 28 and 26, respectively. The average number of fires during the past ten years has been 42 and the value of the property lost in consequence rather more than five lakhs of rupees. In spite of the increase of fires, the value of the property lost was only just over Rs. 4 lakhs, Rs. 3·5 lakhs of which were lost by the burning of a rice mill. The cost of upkeep of the brigade was Rs. 74,513, much the same as in the previous year.

The protracted negotiations with the Rangoon Electric Lighting Company for revision of the agreement under which the latter undertakes the lighting of the town were brought to a successful conclusion. The existing 30 candle-power carbon filament lamps and the existing arc lamps will in consequence be replaced by 50 candle-power metallic filament or half-watt incandescent lamps and 500 (or 400) candle-power half-watt lamps, respectively, and the Company will extend the system of public lighting to certain areas if the Municipal Committee desires and the latter will pay to the former a fixed price per lamp yearly instead of a sum based on a rate per unit of energy consumed. The number of oil lamps was increased from 788 to 797. The cost of lighting by electricity and by oil fell from Rs. 1·78 lakhs to Rs. 1·75 lakhs and rose from Rs. 0·28 lakh to Rs. 0·29 lakh, respectively.

No interruption of the town's water supply occurred during the year of report. The catchment area of the Hlawga lake was declared a reserved fishery under the Burma Fisheries Act, in order to prevent its contamination, and eight acres of land were acquired to extend it. The amount of water supplied to the town rose from 3,982 million gallons to 4,008, and the daily average remained about 11 million gallons, and besides this 23 million gallons were obtained from the tube well at Ahlone and distributed for drinking purposes in the streets. Changes were made in the rules with a view to checking the waste of water and collecting

tax on much water that was formerly supplied free. The new steel main and the large plungers at the Yegu Pumping Station, by facilitating change from supply by pumping to supply by gravitation, effected a large saving in coal. The cost of supplying water rose from 5·15 pies per 1,000 gallons to 6·95 pies owing to the rise in price of coal, and much wood is now used as fuel.

The work of altering the connections and manholes in the sewers laid in certain back drainage spaces preparatory to paving them was continued. The practice of sending rubbish to the depôts by train was discontinued and most of it was conveyed in bullock carts to reclaim low and swampy areas. The rise in the price of coal and loss of bullocks from rinderpest greatly increased the cost of drainage and conservancy during the year.

Increased attention to the weights and scales used in the markets was attended with good results. The Burma Ghee Adulteration Act came into force during the year and a few prosecutions were instituted under it.

Electric light was installed in the slaughter-houses and subsidiary buildings and a new tube well was sunk. The new pig slaughter-house proved a great success. The number of animals, excluding pigs, slaughtered rose from 99,366 to 102,347, and the number of pigs slaughtered from 22,533 to 23,733. The number of cattle that passed through the cattle market, 93,704, was 20,923 more than in the previous year and the highest on record, and the receipts rose from Rs. 10,970 to Rs. 13,192. The number of animals impounded fell from 10,748 to 9,171. Glanders has now been practically stamped out, but a very virulent type of rinderpest visited the town during the year.

No new roads were constructed, and the total mileage maintained, excluding back drainage spaces and lanes, remained at 110 miles, of which 3 are laid with asphalte and 2 with granite setts, all on a foundation of cement concrete; 89 with macadam and 5 with laterite; the rest are unmetalled. Over 850,000 square feet of roads were remade or resurfaced, but no tarring could be done for want of tar. The expenditure on roads fell from Rs. 4·49 lakhs to Rs. 2·92 lakhs, and on street-watering rose from Rs. 61,137 to Rs. 66,240.

Improvements to the Jubilee Hall caused an increase in the expenditure on buildings. Keepers were appointed to look after the parks and to see that the rules were observed. The cutting and trimming of roadside trees was continued. A complete revision of the bye-laws for regulating the erection and re-erection of buildings was undertaken by the Municipal Committee but they have not yet reached the Local Government. The number of applications for erection or re-erection fell from 1,997 to 1,895. Fewer masonry buildings were erected. There was a large increase of prosecutions instituted under the building bye-laws from 854 in 1915-16 to 1,448 in 1916-17 and to 2,118 in the year of report, which was chiefly due to the necessity of removing buildings erected without permission in part of the Theinbyu quarter of the town, which was burnt out two years ago. The collapse of a godown in which unhusked rice was stored resulted in loss of life and injury to a number of labourers. The pressure of such grain on lateral walls was investigated and reference to a committee of experts was recommended.

With effect from the beginning of the year of report, the 1st of April 1917 the Municipality was relieved of all charges in respect of Anglo-Vernacular Education and its responsibility for vernacular education was declared to be subject to a maximum contribution of 5 per cent. of its revenues, excluding revenue obtained from service taxes, and the administration of vernacular education was entrusted to a board called the Rangoon School Board, of which the President is the President of the Municipality, five members of which are appointed by the Municipal Committee, three of whom must themselves be members of the Committee, and three other members of which are appointed by the President of the Municipality. The total expenditure fell from Rs. 2·35 lakhs to Rs. 0·93 lakh.

The loans, excluding those, Rs. 60·5 lakhs, raised on behalf of the Town Lands Reclamation Fund, outstanding at the end of the year of report fell from Rs. 1,31·73 lakhs to Rs. 1,31·16 lakhs. Large investments were made in war loans. The end of the year found the Municipality with a credit balance of Rs. 1·91 lakhs and a sound financial position.

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The Provident and Fire Insurance Funds were in a prosperous condition. A small misappropriation of municipal money by a tax collector led to the introduction of a more stringent system of check and registration of tax bills and the custody of blank tax receipt forms and the creation of a new appointment of Bill Officer.

The question of roadside stalls was reconsidered and better arrangements were made. Attention was paid to encroachments, but those dealt with by the special staff did not produce the revenue anticipated. The control of taxi-cabs was discussed with the Commissioner of Police and proposals to transfer it to the latter were submitted to the Local Government. There was a decrease in licenses issued to hack (bullock) carts from 1,629 to 1,593 and to hand-carts from 1,320 to 1,285 and the fees fell from Rs. 51,492 to Rs. 50,205. There was no sign of any desire on the part of the owners to use carts with wide tyres and pay the smaller fee charged on them than on carts with narrow tyres.

Besides the alterations in the bye-laws already mentioned several others were made dealing with the use of barbed wire and spiked fencing, the conduct of business, the licensing of pawn-brokers, weights and measures and the Provident Fund, and new bye-laws and rules regulating the use of scaffolding, instruments for weighing, and the municipal franchise, came into force during the year. The Secretary was placed on deputation to visit Calcutta and Bombay and study their administration. Six officers of the superior service and eight of the subordinate staff were on military service during the year.

The population of Rangoon was 293,316 in 1911 and was estimated at 319,041 in the middle of 1917. The number of births rose from 6,045 in 1916 to 6,372 in that year and the birth rate (per 1,000 of estimated population) from 19·26 to 20·04; the number of deaths fell from 10,597 to 9,885 and the death rate (per 1,000 of the population of 1911) from 36·13 to 33·70. The number of infants who died before reaching the age of one year rose from 1,741 to 1,827 and the rate of such infantile mortality fell from 288 to 287; the rate was 369 among Hindus, 338 among Mahomedans and Malays, 303 among Chinese and Panthays, 202 among Burmans, 143 among Anglo-Indians, 94 among Europeans, and 491 among other classes. The number of cases of plague fell from 1,921 to 1,378 and the number of deaths from 1,810 to 1,288. The age most affected was that between 20 and 30 and the Hindus suffered the most. The number of persons inoculated against plague fell from 5,431 to 5,166 and the number of rats destroyed rose from 385,161 to 420,052. The number of cases of cholera fell from 92 to 76 and the number of deaths from 73 to 49. The number of cases of small-pox fell from 1,023 to 171 and the number of deaths from 343 to 18. The number of deaths from enteric fever rose from 26 to 39; from malarial fever from 151 to 271; from dysentery and diarrhœa from 958 to 976; and from tubercle from 564 to 709; but deaths from beri-beri fell from 122 to 84. The number of vaccinations performed fell from 64,466 to 29,494, including 11,330 performed on passengers arriving by sea. The decrease is due to the fact that a special effort was made to protect the population in the two preceding years when small-pox was very prevalent.

The Advisory Committee of Town Lands Reclamation held four meetings during the year, and, among other duties, considered and adopted plans for laying out various areas of the town. Work was carried out in East Rangoon, Theinbyu, the Mill road and other areas.

Minor Municipalities.

71. The number of municipalities was 44 as in the previous year. Nearly all have the power to elect their own Presidents. The boundaries of the Insein Municipality were extended so as to include the whole of the jail area, and those of Thayetmyo were revised.

There was no important change in the constitution of Municipal Committees during the year. The numbers of official and non-official members fell from 200 and 365 to 199 and 363, respectively, and no extension of the elective system took place. The delay in introducing changes in the constitution of committees foreshadowed in last year's Report may be attributed to the recent pronouncement made by the Government of India on the policy of Local Self-

Government, which contemplated a more extensive liberalization of the franchise than the Local Government had in view at the time, and rendered a further reference necessary to the local officers to indicate the lines on which their proposals should be formulated. Definite proposals were not received from all the Municipal Committees, but it was observed that the inhabitants of many towns, stimulated by the discussions on constitutional reform, had held public meetings to consider the form of representation on Municipal Committees and it is hoped that the proposals now awaited will fully represent the needs of each municipality. The average attendance at meetings was satisfactory. Only three meetings out of a total of 844 proved abortive for want of quorum; there were six in the previous year.

Expenditure on "Public safety" rose from Rs. 2·88 lakhs to Rs. 2·94 lakhs. Most of the municipalities enjoyed immunity from fire during the year. There were, however, six fires at Akyab, one of which destroyed a mill worth Rs. 2,30,000 belonging to Messrs. Steel Brothers & Co., Ltd. The Moulmein Fire Brigade attended 11 small fires and there were 28 calls on the Mandalay Fire Brigade. At the latter place, 28 buildings including saw-mills, timber yards and tobacco and cigar factories were burnt, the damage caused being approximately Rs. 2 lakhs. Serious fires occurred at Toungoo and Tavoy also. Out of the total of Rs. 2·94 lakhs a sum of Rs. 2·56 lakhs was spent on lighting.

There was no capital outlay on water-works during the year, except a small sum of Rs. 3,000 at Minbu, although nearly Rs. 3·5 lakhs had been spent under this head in the previous year. On the other hand, charges on account of establishment, repairs, etc., in connection with water-supply increased from Rs. 66,550 to Rs. 1,24,284. Owing to the difficulty in procuring materials and owing also to their prohibitive cost, there has been some unavoidable delay both in the initiation and in the completion of large and important water-supply schemes in some of the municipalities.

No capital expenditure was incurred in connection with drainage works except at Myinygan, Prome and Akyab, as the Sanitary grants given during the year were chiefly for water-supply, conservancy and markets. Charges on account of establishment, repairs, etc., amounted to Rs. 40,194—nearly double the amount spent in the previous year. The total expenditure on conservancy rose from Rs. 8·29 lakhs to Rs. 8·56 lakhs. Sanitary grants amounting to Rs. 42,970 were allotted during the year for the construction of aerobic filter latrines.

Expenditure under "Hospitals and Dispensaries" continued to grow and rose from Rs. 7·16 lakhs to Rs. 7·52 lakhs. The increase was chiefly due to the enhanced cost of "European Medicines;" to the construction of a new surgical ward at Bassein, of a new operation room at Sandoway and of a European ward at Tavoy; to expenditure on a new hospital and subsidiary buildings at Toungoo; and to the carrying out of many petty alterations and improvements to the hospital quarters at Mandalay. It was urged that the maintenance of a hospital constituted an unfair drain on the resources of Municipal Funds, and the inadequacy of public subscriptions was commented on and both questions were under the consideration of the Local Government.

The transfer of expenditure on Anglo-Vernacular education from Local to Provincial Funds, and the assumption by all municipalities in Lower Burma and by that of Mandalay in Upper Burma of the cost of Vernacular education, resulted in a decrease from Rs. 2·09 lakhs to Rs. 1·83 lakhs in the amount spent during the year by municipalities on education which was shared by all the Lower Burma Divisions except Arakan. In the Pegu Division all the municipalities except two showed decreases in expenditure on education and in those two the increase was insignificant. In the Irrawaddy Division six out of eleven municipalities showed increases, but in the Tenasserim Division all save two decreases. The contribution to education made by the Mandalay Municipality fell by no less than Rs. 10,000.

Two towns, Pyu in the Toungoo District and Mawlamyainggyun in the Myaungmya District, were added to the list of notified areas, *i.e.* areas in which certain provisions only of the Municipal Act are in force, the number of which is now 22. The boundaries of the notified area of Shwedaung were extended. The

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total income of these areas, excluding opening balances amounting to Rs. 3·62 lakhs and extraordinary receipts amounting to Rs. 0·97 lakh, fell from Rs. 9·84 lakhs to Rs. 8·70 lakhs. The incidence of taxation varied from Rs. 0-2-9 at Maymyo in the Mandalay District to Re. 0-12-3 at Mawlamyainggyun. The average incidence for all the notified areas fell by 2 annas 3 pies to Rs. 2-3-5. The decrease of over a lakh of rupees in the total ordinary income is mainly accounted for by the decrease in the amounts of Sanitary grants paid. In the previous year Sanitary grants to notified areas reached the total of Rs. 2·44 lakhs, but in 1917-18 they amounted to Rs. 65,760 only. The difference between these figures is reflected also in the fall in the total ordinary expenditure from Rs. 9·68 lakhs to Rs. 8·39 lakhs. Many towns have important schemes in hand or under consideration, for the improvement of water-supply, drainage and conservancy, but until the abnormal conditions produced by the war, such as the high cost of materials and the difficulty of obtaining them, have passed away, there is little prospect of these schemes being carried out and the large closing balances were in many cases due to the fact that the grants received or the funds collected for such schemes could not be spent to advantage.

The improvement in the general health of municipalities observed in the previous year was hardly maintained. Out of 39 municipalities 22 reported an increase and 17 a decrease in the death-rate. The municipalities of Lower Burma showed an improvement, the death-rate falling in 14 and rising in 12, but in those of Upper Burma it fell in only 3 out of 13. Thirteen municipalities in Lower Burma and 6 in Upper Burma reported more or less serious outbreaks of plague. The most serious was in Mandalay where the deaths reached the total of 2,429 and the death-rate rose by nearly 23 per thousand. Myingyan recorded 610 deaths from the same cause. The mortality from plague in Bassein fell, but was still unsatisfactorily high. Plague occurred in eight of the notified areas, the most serious outbreak being at Meiktila. The notified area of Nyaunglebin suffered severely from cholera, which carried away no less than 165 persons, but otherwise there was remarkably little cholera in the year of report, the second highest mortality being 13 at Bassein. Save at Mergui and Thôngwa, where it accounted for 122 and 52 deaths, respectively, only a few sporadic cases of small-pox occurred. Only half of the large increase in mortality at Mergui was due to small-pox and the causes of the unhealthiness of the town seemed to require careful investigation. Malaria was said to be prevalent in it and also in Insein. A rise of over 30 per cent. in the number of deaths at Tavoy, which was free from epidemics, was attributed to the large number of fever and other cases brought in from the mines in the district. Kyauksè reported no epidemic, but the number of deaths rose by 104 and the cause of this large increase is being enquired into. Heavy infantile mortality was reported from Mandalay and Taungdwingyi.

Marine.

Light-houses and light-ships.

72. The work of sealing the chasm at the Alguada Reef and blasting rocks at the entrance to the new boat harbour to enable boats to enter or leave the harbour at low water, and improvements to the landings at the light-house were successfully completed. The Table Island Light-house was provided with six concrete water tanks. The light-ships "Danidaw" stationed at the Baragua Flats and "Kalagauk" at the Krishna Shoal were towed in turn into Rangoon by the R.I.M.S. "Mayo" for their annual overhaul and repairs. During their stay in Rangoon the relief light-vessel "Martaban" took their places. The China Bakir and Eastern Grove lights and the light on the "Kemmendine" stationed at the Spit were all shut down on the 12th of March 1917, and exhibited on the 4th of December 1917. The R.I.M.S. "Mayo" was the station vessel during the year and carried out all reliefs in connection with light-houses and light-ships. Owing to the irregular steamer service to Akyab, advantage was taken of her visits to that port to ship Public Works Department stores, specie, etc. She was absent from the station for two periods with the General Officer Commanding, Burma Division, on inspection duty. There were no deaths at any of the light-houses,

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and the health of the light-keepers, both European and Indian, and of the crews of the light-ships, was good throughout the year. The total expenditure on light-houses and light-ships rose from Rs. 2·45 lakhs to Rs. 2·97 lakhs; the expenditure on repairs to light-houses by the Public Works Department rose by Rs. 75,486; that on oil fell by Rs. 7,725 and that on blue light composition by Rs. 14,747. The receipts from coast-light dues fell from Rs. 3·72 lakhs in 1916-17 to Rs. 3·17 lakhs in the year of report. These amounts do not include the annual contribution of Rs. 4,200 paid by the Port Commissioners, Rangoon, towards the Spit light-vessel. The annual *pro forma* account of the Burma coast-light dues showed a loss of Rs. 1,65,394 on the year's working—Rs. 49,539 more of a loss than in the previous year.

Port Administration, Rangoon.

73. The revenue account of the Commissioners for the Port of Rangoon showed a deficit, for the first time since the outbreak of the war, owing to depression in both the import and export trade. The capital debt, which consists of loans raised almost yearly from 1903 to 1913, remained at the end of the financial year the same, Rs. 298·62 lakhs, as in the previous year and the securities held at the credit of the sinking funds rose from Rs. 51·89 lakhs to Rs. 57·11 lakhs. The receipts on revenue account fell from Rs. 45·13 lakhs to Rs. 41·45 lakhs and the ordinary payments rose from Rs. 39·99 lakhs to Rs. 40·75 lakhs. Two lakhs of rupees, however, were transferred to depreciation and other heads and so the revenue account showed a deficit of Rs. 1·30 lakhs. The expenditure including these two lakhs of rupees was Rs. 42·75 lakhs, about four lakhs of rupees less than was anticipated, the saving being effected by a general curtailment of expenditure, decrease in labour charges due to decreased imports, saving in the cost of up-keep of certain vessels purchased or hired by Government for war work, profit on exchange and non-completion of certain works. A sum of Rs. 75,000 was added to the revenue reserve fund, the same amount to the fire and marine insurance fund and Rs. 1,25,000 to the depreciation and replacement fund during the year. The sum held at the credit of these reserve funds and that specially created in the previous year to meet the depreciation of securities held on their account rose from Rs. 36·69 lakhs to Rs. 38·62 lakhs.

The customs returns showed that 85·71 per cent. of the foreign and coasting trade of the Province passed through Rangoon; of the imports 58·6 per cent. were landed on, and of the exports 15·1 per cent. were shipped from the premises of the Commissioners and the rest passed through private premises or were discharged into or landed from inland vessels; the figures of the previous year were 84·18, 55·6 and 16·5. The inland (river-borne) trade which passed over the premises of the Commissioners fell from 720,309 tons to 664,770. The revenue of the traffic department fell from Rs. 22·26 lakhs to Rs. 21·16 lakhs and the expenditure exclusive of capital from Rs. 8·50 lakhs to Rs. 8·05 lakhs. The number of berths available for sea-going ships remained the same as in the previous year and in only one case was it found impossible to berth a ship immediately on arrival. The cargo landed on the premises of the Commissioners directly or by lighters from sea-going vessels fell again from 396,516 tons to 327,991 and that shipped direct into sea-going vessels rose from 68,293 tons to 78,664. The number of passengers, excluding troops, to or from ports outside Burma who passed over the wharves and pontoons of the Commissioners fell from 430,057 in 1916 to 423,699 in 1917. The area of godowns let or available for letting at the end of the year rose from 631,741 to 639,441 square feet. The traffic over the Commissioners' sidings fell from 297,978 tons to 279,310.

The expenditure of the engineering department fell from Rs. 5·20 lakhs to Rs. 4·97 lakhs. No new work of any magnitude was undertaken. The prices for work done were slightly higher than in the previous year and at the end of the year the prices of stores and materials of home manufacture were still rising.

The upper river training wall satisfactorily stood the test of another year. The greatest sinkage at any point was 1·62 inches and the average 0·94. The apron continued to settle, but not to the extent anticipated. The amount of silt estimated to have been deposited in the embayment behind the wall during the year

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fell from about a million and a half to 710,892 tons. In places the silt is two feet higher than the top of the wall or about eight inches below the level of mean high water during the year and thick grass and shrubs are growing over a large part of the area. An embankment to train the Kanaungto creek was begun and in spite of difficulty caused by sinkage was well advanced during the year.

The number of steamers, excluding Government vessels, which arrived in the port fell from 996 of 2,064,091 net registered tonnage to 914 of 1,744,936; and of those which left from 1,005 of 2,081,444, to 909 of 1,734,766. The number of sailing ships which arrived and left were 23 of 30,918 tons and 214 of 27,877, respectively—figures which show a large increase over those of the previous year, which were 167 of 10,801 tons and 171 of 12,294, respectively. The total net registered tonnage of vessels (excluding Government vessels) entering the port was therefore less than that of the previous year by 14·41 per cent. The number of cargo-boats and passenger and cargo sampans licensed during the year fell from 813 and 6,622 to 776 and 5,259, respectively. The Commissioners proposed to the Local Government the amendment of the Rangoon Port Act so as to bring the pilot service under departmental control, and a draft Bill to effect this has been submitted to the Government of India since the close of the year of report for sanction to its introduction in the Local Legislative Council. At the close of the year 23 employees were on war service. The use of a vacant plot of land was sanctioned as a camping-ground for Indian coolies leaving Burma for Indian ports and provision for the necessary sanitary arrangements was made. About two and a half acres of land were acquired at Danidaw for the use of the Port Commissioners.

Pilot Service: Rangoon

74. The Rangoon Pilot Fund opened with a debit balance of Rs. 8,980, which by treatment of certain amounts due to the Port Fund as advances against the Pilot Fund, was converted into a credit balance of Rs. 22,638. The receipts for the year fell from Rs. 2,91,681 to Rs. 2,90,800 and the payments from Rs. 3,14,540 to Rs. 2,92,177 and the balance at the close of the year was Rs. 10,357, which was converted in the same way into a credit balance of Rs. 27,834. Owing to the deficit in the Fund a surcharge of 15 per cent. on the pilotage fees on vessels, and a deduction of 3 per cent. from pilots, when their average earnings in any month and the two preceding months were in excess of a certain amount, were sanctioned by the Local Government with effect from the 1st of July, 1917. Despite this the deficit in the fund at the end of the year rose by Rs. 1,377. The usual annual contribution of Rs. 21,000 to the vessels' depreciation fund was again not paid and that fund increased only from Rs. 2·11 lakhs to Rs. 2·17 lakhs. Excluding miscellaneous receipts, the gross pilotage fees rose slightly from Rs. 2·88 lakhs to Rs. 2·90 lakhs, and the payments to pilots fell from Rs. 2·20 lakhs to Rs. 1·97 lakhs. The pilot service was well maintained during the year. There were nine delays at the pilot station, due in four cases to arrival of vessels before the advised date, in one case to a vessel arriving unadvised and in the remaining four cases to the fact that all the pilots were engaged. During the year two pilots proceeded on military service, making a total of seven pilots on war duty out of 21 on the rolls, one of whom was killed in action in France. Six of them were considered as seconded for service under Government and sub. *pro tem.* promotions were granted in their places.

Minor ports.

75. Besides Rangoon, there are six ports in the Province, Akyab, Kyaukpyu, Bassein, Moulmein, Mergui and Tavoy, in which Port Funds are maintained. The total receipts and expenditure of these funds fell from Rs. 4·25 lakhs to Rs. 3·95 lakhs and from Rs. 4·32 lakhs to Rs. 3·63 lakhs, respectively, in the year of report. There was a decrease in receipts in all funds, except Mergui, where there was a small increase of Rs. 263. Expenditure increased in Moulmein and Mergui, the increase in the former being considerable. Expenditure exceeded the receipts in the Port Funds of Moulmein, Mergui and Kyaukpyu, which closed with smaller balances than in 1916-17. At the end of the year the Moulmein and Tavoy Port Funds owed the Local Government Rs. 52,402 and Rs. 60,988, respectively.

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Besides Rangoon there are pilot funds at Akyab, Bassein and Moulmein. These funds derive their income from pilotage fees and the expenditure consists mainly of the cost of maintenance of pilot vessels and payments to pilots. The aggregate receipts of the three pilot funds decreased from Rs. 1·11 lakhs to Rs. 0·90 lakh. The closing balances of the Akyab and Bassein Pilot Funds showed an increase, while in Moulmein the expenditure slightly exceeded the receipts, causing a corresponding reduction in the closing balance. Port Officers appointed by Government and assisted by advisory boards continued to manage the ports of Akyab, Bassein and Moulmein. The decision arrived at in 1916-17 to exclude aliens other than the subjects of any State in India from these boards was during the year of report modified, and the Local Government was permitted, subject to the approval of the Government of India, to exclude from the scope of the restrictions any aliens or class of aliens.

Commercial marine: shipping.

76. Repeated voyages are counted in the statistics given in this paragraph and coasting trade means trade with Indian ports, whether British or not. The number of vessels entering ports in Burma decreased from 6,095 to 5,905 and their aggregate tonnage from 2,708,301 tons to 2,289,022. The number of vessels clearing from ports in Burma rose from 5,631 to 5,662, but their aggregate tonnage fell from 2,707,365 tons to 2,304,087. These figures illustrate the continued decline in tonnage available for shipping owing to the war.

The number of vessels engaged in the foreign trade which entered the ports of Burma rose from 565 to 637 and their tonnage from 888,810 tons to 895,672 and the number which cleared rose from 679 to 709 and their tonnage from 954,141 tons to 980,446. Of the former, sailing ships numbered 169 of 31,053 tons and of the latter 218 of 32,176 tons. Corresponding figures for the previous year were 120 of 14,497 tons and 224 of 27,182, respectively. The number of vessels which entered Rangoon from foreign ports rose from 337 to 382 and their tonnage from 732,645 tons to 751,798 tons and the number which cleared rose from 364 to 401, but their tonnage fell from 837,205 tons to 826,452. Of the former, sailing ships numbered 19 of 17,119 tons and of the latter 20 of 14,160 tons, respectively. These figures show a remarkable increase over those of last year, which were 1 of 1,860 and 2 of 3,190, respectively, and show the recourse had to sailing ships on account of the scarcity of steam-vessels.

The number of vessels engaged in the coasting trade which entered the ports of the Province fell from 5,530 to 5,268 and their tonnage from 1,819,491 tons to 1,393,350 and the number which cleared rose from 4,952 to 4,953, but their tonnage fell considerably from 1,753,224 tons to 1,323,641. Of the former, sailing ships numbered 4,347 of 133,190 tons and of the latter 4,051 of 127,861. The figures of the previous year were 4,425 of 123,361 tons and 3,855 of 107,974, respectively, so that the number and tonnage of sailing vessels employed in the coasting trade increased. Of the vessels engaged in the coasting trade the number of steamers which entered Rangoon fell from 655 to 547 and their tonnage from 1,321,028 tons to 1,001,001 and of those which cleared from Rangoon the number of steamers fell from 637 to 532 and their tonnage from 1,236,247 tons to 931,480. The number of sailing ships which entered rose from 166 to 202 and their tonnage from 8,941 to 13,583 and of those which cleared rose from 166 to 191 and their tonnage from 8,951 tons to 13,535.

The number of vessels entering the ports of the Province from foreign countries during the year which flew British colours fell from 387 to 346 and those which flew foreign colours rose from 178 to 291. The vessels under French colours rose from 1 of 3,959 tons to 15 of 5,640 and those under Chinese from 6 of 6,353 tons to 49 of 49,084. Those under Dutch fell from 55 of 80,836 tons to 52 of 77,631. Those under Greek rose from 1 of 2,135 tons to 6 of 10,766 tons; those under Italian from 1 of 3,512 tons to 15 of 38,444; and those under Japanese from 54 of 111,226 tons to 86 of 149,257 tons. Those under Norwegian fell from 49 of 40,991 tons to 36 of 33,211.

In the coasting trade the number of vessels entering the ports of the Province which flew British colours fell from 866 to 815 and of those which flew foreign

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colours from 98 to 80. The number of native craft rose from 3,428 of 82,765 tons to 3,486 of 93,988 tons. Of the vessels which entered Rangoon from foreign ports the number flying British colours fell from 184 to 148 and the number flying foreign colours rose from 153 to 234. Of the last the number of Japanese vessels rose from 49 to 75, of Dutch fell from 52 to 50, of Chinese rose from 6 to 40, of Norwegian fell from 36 to 31, of Italian rose from 1 to 14, of Greek rose from 1 to 6, of French rose from 1 to 5, of Spanish rose from 1 to 5, of Russian rose from 3 to 4, of Portuguese rose from none to 2, of Danish rose from none to 1 and of Swedish remained the same one. The number of American vessels fell from 2 to none. In the coasting trade of Rangoon the number of British vessels which entered the port fell from 699 (including 166 native craft) to 646 (including 187 native craft) and of foreign vessels from 122 to 103. The latter consisted of 45 Dutch, 35 Japanese, 14 Russian, and 9 Norwegian; the figures were 59, 47, 4 and 9, respectively, in the previous year. The number of British vessels which cleared fell from 694 (including 166 native craft) to 635 (including 178 native craft) and of foreign vessels from 109 to 88.

Commercial marine: wrecks and casualties.

77. During the year there were 13 accidents to sea-going vessels in the port of Rangoon, 4 more than in the previous year. Eight of the accidents occurred while the vessel was in charge of a pilot or assistant harbour master, but it was not found necessary to take action against any of the officers concerned. None of the accidents was serious, except the fire on and sinking of the S.S. "Ayuthia" with a cargo of petroleum on the 7th of February, 1918. In that case a judicial enquiry was held by the District Magistrate of Rangoon, and it was found that no one was to blame for the outbreak of the fire and loss of the ship. The ordinary rules for the transport of petroleum appeared inadequate in the case of such a vessel not specially adapted for such cargo and their revision was considered.

Government steamers and launches.

78. There were 161 Government vessels at the beginning of the year of report. The Royal Indian Marine Vessel "Sladen" was throughout the year at Rangoon on the examination service. The "Bhamo" carried by river about 900 troops and followers, besides women and children, convicts and ammunition, and 900 tons of stores and her total earnings rose from Rs. 34,388 to Rs. 2·48 lakhs. Four motor-launches were added to the Government flotilla during the year. No vessels were impressed by the Government of India for service in Mesopotamia, but eight steam-launches and two flats were made over to the Base Commandant, Mônywa, for urgent military operations up the Chindwin River. One mooring boat having been found unserviceable was sold. At the close of the year there were in Upper and Lower Burma, 90 steam-launches, 2 steam barges, 25 motor-launches, 13 house-boats, 11 flats, 7 barges, 1 water-boat, 4 light-ships, 3 dredgers, 2 buoy-vessels, 1 mooring boat, 3 cargo-boats, 1 pony-boat and 1 rock-smasher, 164 in all, besides 2 steam-launches which continued to be under hire of Government and the 20 vessels of various kinds which were still in Mesopotamia. The steam-launch "Bassein II" struck an uncharted submerged rock in the Bassein river and sank, but was successfully raised and towed down to the Government Workshop, Rangoon, and repaired within 30 days after the accident. Three steam-launches which were taken away from the districts in 1916-17 continued during the year to be employed on customs and military patrol in the Rangoon River. The total earnings of the Government vessels for the year rose from Rs. 7·06 lakhs to Rs. 7·50 lakhs. The Police, Telegraph, Customs and other boats in the various districts were in good condition and fully employed. Eight police boats having been found unserviceable were condemned and one boat was replaced. Eleven launches and nine flats were docked at the patent slip in Mandalay. The wood and coal depôts continued to supply requirements and the arrangements carried out by the Forest Department for the supply of wood fuel were satisfactory. The value of the stores received in the store godowns at Rangoon, Mandalay and Bassein was Rs. 1·6 lakhs, about the same as in the previous year, and the value of stores issued was Rs. 3·81 lakhs, an increase of Rs. 1·80 lakhs. The value of the work done at the Marine Workshop, Mandalay, fell from Rs. 68,088 to Rs. 61,458.

The cost of repairs to vessels and works carried out at the Government Workshop, Rangoon, fell from Rs. 5·95 lakhs to Rs. 3·81 lakhs.

Marine works and surveys.

79. In the dry season the Monkey Point channel commenced to silt up rapidly and it was decided to use the dredger "Pelican" and the paddle steamer "Firefly" to drag the channel during the ebb tides. This proved successful as the channel gradually improved and a minimum depth of 13 feet of water was maintained in the channel through the dry season. The dredger "Frederic Fryer," which was hired by Government in February, 1917, dredged 52,000 tons in the Danidaw reach and was returned in May 1917. The suction dredger "Cormorant," which was requisitioned by Government and despatched to Basra in May 1916, was returned in August 1917; she dredged 982,000 tons from the 22nd August 1917 to the end of March 1918 at a cost of 1 anna 7 pies per ton. During the year 42 vessels had, owing to insufficient water, to complete their loading below the Hastings, 22 less than in the previous year. Six vessels on arrival could not enter the harbour owing to insufficient water and were detained below the Hastings, five less than in the previous year. The river bed in general remained normal with the exception of the Kamakasit shoal, which was still in a disturbed state. During the year complete new surveys of the river bed from Kemmendine to Middle Point (Syriam), including the Pegu river within harbour limits, and from Hmawun beacon to Elephant Point were made. The areas were sounded, re-coastlined with all shore details up to date, and newly plotted. The extension of the existing landing stage at Kamyawkwin in the Tavoy District was completed during the year. In the Akyab District the new landing stage at Pauktaw was nearly completed and for the extension and improvement of landing stage at Ponnagyun only the concrete platform remained to be constructed. Good progress was made on the jetty at Andrew Bay in the Sandoway District.

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

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Agriculture.

Occupied and cultivated area.

80. The occupied area of the Province increased during the year from 18,356,601 to 18,625,229 acres, or about one and a half per cent. The cultivated area increased from 14,415,396 to 14,667,921, or about 1·7 per cent.; the matured area from 13,745,836 to 13,922,476 acres, or about 1·3 per cent. and the fallowed area was slightly more. The matured area was the largest on record.

All the principal districts in Lower Burma except Amherst showed an increase in occupied area, especially Hanthawaddy, Myaungmya and Pegu. In the first cultivation increased towards the sea-coast; in the second part of a disforested fuel reserve was colonised by a co-operative society; in the last cultivation extended along the sea-coast; on the other hand, there was a very great increase in fallow. Most of the other districts showed large decreases in fallow, especially Insein and Bassein. All the chief districts except Amherst showed an increase in area cultivated. Floods in the Sittang, Gyaing and Attaran rivers caused the crops over large areas to fail in the Toungoo, Thatôn and Amherst Districts. The Irrawaddy river did not overflow its banks to the same extent as last year and there was a large decrease in the area in which crops failed in the Bassein District.

In Upper Burma all the principal districts showed increases in occupied area; the Magwe and Meiktila Divisions showed increases in fallow and the Mandalay and Sagaing Divisions decreases; all divisions except the last showed increases in cultivated area and all but Mandalay in area in which the crops failed. These figures illustrate the uncertainty of cultivation in Upper Burma In Thayetmyo, Pakôkku and Myingyan large increases of occupied area were recorded. In

the first the cause was the popularity of cotton, due to the high prices of the previous year, and in the others to extension of cultivation in tracts not under supplementary survey.

Nearly all the land cropped more than once lay in the Magwe and Meiktila Divisions of Upper Burma and its area decreased from 626,553 to 595,567 acres, chiefly owing to the cultivators growing rice, as the season was favourable for it.

The crop most largely cultivated was, as usual, rice, which occupied about 10·75 million acres, of which all but about a quarter of a million were under winter rice; next came sessamum occupying rather more than one million acres; then millet and white beans occupying each half a million acres; and then groundnut and cotton each occupying just under a quarter of a million acres. The area under rice increased by 137,086 acres. Only the Tenasserim, Magwe and Meiktila Divisions out of the eight showed a decrease, caused in the last named by deficiency of water for irrigation, due to the realignment of certain Government canals and the popularity of white beans due to the high prices of the previous year. The latter is also assigned as one of the principal causes of the decrease in areas under millet (both white and red), wheat, maize, gram and other pulses. There was, however, an increase in the area under "little" millet (*lu*) in the Magwe District. Scanty rainfall in June and July caused a decline, chiefly in the Magwe and Meiktila Divisions, in the area under early sessamum. The area under late sessamum also declined, and that under groundnut again decreased, especially in the Magwe District. The expectation of a great European demand and high prices caused a remarkable increase in the area grown with the small variety of white beans from 191,325 to 482,282 acres. It was grown almost entirely in Upper Burma, but over a thousand acres were planted with it in the Tharrawaddy and Henzada Districts of Lower Burma and it was sometimes tried as a second crop on rice lands which had been flooded.

Similarly the hope of high prices stimulated the growing of cotton and the area under it increased by over 10 per cent., though it is still below the record reached in 1913-14. The areas under tobacco, sugarcane and rubber also increased during the year.

Area irrigated.

81. The area irrigated from all sources fell from 1,304,371 acres in 1916-17 to 1,249,985 in the year of report, but the former figures constituted a record. The decrease occurred chiefly in the Kyauksè and Meiktila Districts. There was a decrease in the area irrigated from Government canals of 21,733 acres, which was chiefly due to the realignment of certain canals in the Kyauksè District. Elsewhere the various systems of irrigation worked well and maintained a sufficient supply of water, except in the Magwe District where irrigation from private canals failed for want of rain and in the Meiktila District where the supply of water in the more important tanks was insufficient to afford timely benefit to the rice crop.

The Agricultural Department.

82. One or two officers of the Agricultural Department were called away from their work owing to military exigencies during the year. Sanction was given to the recruiting of an additional Agricultural Assistant and five District Agriculturists for the Irrawaddy Division and a District Agriculturist for the Amherst District. The staff consisted at the end of the year of 2 Deputy Directors, 8 Agricultural Assistants, 4 Chemical Assistants, 5 Agricultural Assistants under training at Poona, 5 Overseers, 9 Sub-Overseers, 23 District Agriculturists of whom 5 were under training and 3 probationers; a third post of Deputy Director sanctioned in 1915 has not yet been filled. A large development of the department involving reorganization of the staff was under consideration.

The four Assistants who joined the new Agricultural College at Poona in 1917 passed satisfactorily the intermediate examination in Agriculture of the Bombay University during the year. The District Agriculturists destined for the Sagaing and the Lower Chindwin Districts completed their training at Mandalay and began work in these districts. Twelve members of co-operative societies were shown the methods and implements used on the department's farms and one received instruction in dairying. Little educative work was done by the department during the

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year and the need of an institution, such as an Agricultural College at Mandalay, was felt. The cost of the department fell from Rs. 2·49 lakhs to Rs. 2·39 lakhs and the receipts from Rs. 24,733 to Rs. 12,892.

An Agricultural Engineer, temporarily appointed, was at work during the year and the work done proved the necessity for the permanency of the appointment.

Agricultural research.

83. There were, as in the previous year, three Agricultural Stations at Mandalay, at Hmawbi in the Insein District, and at Tatkôn in the Yamèthin District, five sub-stations and eight district farms. Experiments with rice at Mandalay proved the value of organic and phosphatic manures separately and in combination; the value of burnt husk of rice as a dressing for heavy soils; and the fact that bonemeal, though it considerably increases the crop, is too expensive to be profitably used; the benefits of thin seeding and double planting were again manifested. Over five thousand baskets of seed were distributed and "*Ngasein* 2104," continued to be popular. Selection in four of seven varieties of rice received from co-operative societies resulted in improved strains which were accordingly multiplied. Experiments at Hmawbi indicated that most manures affected the straw more than the grain, that bulky organic manures give the best results, that superphosphates are better than bonemeal, that Lower Burma soils do not need potash, that sodium nitrate appears to retard the growth of rice, that nitrolim is much inferior to sulphate of ammonia, and that lime has little effect. The method of transplanting rice on plantain leaves on which a thin layer of mud is placed, used in the Philippine Islands, was tried, and, as it allows seedlings to be transplanted fifteen days after sowing, may prove of use in flooded tracts.

At Tatkôn experiments in types, branched and unbranched, of sessamum were continued and analyses of oils were made, but the latter showed only small differences.

Wheat of various kinds, including macaroni and bread wheat, was tried at Padu, Hopin, Yawnghwe and Mandalay with indifferent results.

At Taungtha various kinds of groundnut were tested and analyses of oils made which showed that those with the larger seeds have the smaller oil content.

Owing to the demand for and high prices of white Burma beans (*pèbyugale*) the department distributed seed to the Yamèthin, Thayetmyo, Toungoo, Pegu, Minbu and other districts with varying degrees of success; the area under this crop could be still greatly extended but the demand is uncertain. The bean was attacked by the fungus *Rhizoctonia Napi* and steps were taken by burning the plants affected and supplying seed from unaffected areas to stamp it out. Work on the question of prussic acid in the bean was continued by the Agricultural Chemist.

Experiments in cotton, chiefly the *wagyi*, *wagale*, Cambodia and cross-bred varieties, were made at Padu, Taungtha, Tatkôn and elsewhere and staples up to an inch in length and of fine quality were obtained from the crosses. The Cambodia variety (an exotic American type) was successful and will be the subject of further investigation.

Six new types of sugar-cane were obtained from Coimbatore, bringing the total under experiment to twelve. Mr. Ganni has a large area under sugar-cane in the Toungoo District and produced 28 tons of jaggery (coarse brown sugar) and is about to try to produce white sugar. In Prome a power-crusher was set up. Cultivators complained of the high cost of seed or setts, about Rs. 40 per acre, and of manufacturing plant and steps were considered to meet these difficulties.

Experiments in tobacco suffered from want of staff and knowledge of growing and curing. The "Pusa 28" variety was proved at Hmawbi to give a finer leaf and be more suitable for cigarettes than local kinds and tobacco grown on an island in the Prome District was rack-cured and sent to Rangoon for valuation.

Jute was tried at the Hmawbi Agricultral Station, district farms and jails. It appeared that in Lower Burma jute must be sown at latest after the first heavy showers in May, that *Corchorus Capsularis* thrives better than *Corchorus Olitorius*, that the soil required is a good loam with a body of silt and good drainage, and that the sandy soils of the gardens of Lower Burma are unsuitable for jute.

Samples were sent to Rangoon and Calcutta. The latter criticised the retting and valued the samples, some at Rs. 7 and some at Rs. 9 per maund landed in Calcutta. The Demonstrator in jute and two labourers provided by the Government of Bengal began work at the Yedashe farm in the Toungoo District. Bimlipatam jute (*Hibiscus Cannabinus*) was also tried with fair success.

Among fodder crops Guinea grass (*Panicum maximum*) did well at Hmawbi. Experiments among various millets, etc., were made at Taungtha in the hope of obtaining a substitute for jowar, which is badly attacked in Burma by the *pwinbyu* parasite (*striga lutea*). Attempts to get rid of this parasite are still being made at Mandalay.

Experiments were made with *pesingôn* (arhar dhall), linseed, potatoes and pulses. A local firm accepted the agency for selling the seeds of English vegetables, which are becoming popular as food among the Burmans. The First Assistant to the Imperial Mycologist again visited several of the rubber estates of the Province.

The small experiment in dairying, with a view to the co-operative purchase of utensils, begun in Mandalay in 1914, has now been completed. It was found that the use of the separator and churn was more economical in time and labour in dealing with large quantities of milk than the use of the separator alone or the country methods and that it produced a larger amount of hard cheese than the country methods and the usefulness of ripening by starters was proved.

Germination tests were again made at Hmawbi on account of complaints made of the bad germination of rice seed distributed by the department. It was shown that the method of storage was not to blame; the use of the threshing machine was condemned, but it was held that the fault lay chiefly in damage done to the seed on its journey from Hmawbi to the purchasers.

Methods of protection against the depredations of marine crabs in the Thatôn District were sought without success and investigation into the need of certain soils in Lower Burma for phosphoric acid and into soil acidity continued.

A flourishing mulberry garden now exists at Lashio in the Northern Shan States and demonstrators in breeding silkworms and in the reeling of silk have been applied for.

Investigation was made into several kinds of insect pests and the water hyacinth (*Eichorina crassipes*) which impedes water traffic in the Province.

The result of the inquiry into the presence of prussic acid in Burma beans was issued as a bulletin of the Agricultural Research Institute at Pusa, several leaflets were published and numerous requests for information on agricultural matters were complied with. The fourth combined agricultural co-operative conference was held at Mandalay in August, 1917.

Seed distribution and demonstration.

84. Over 3,000 baskets of selected strains of rice seed were distributed from the Hmawbi Station, 600 from the Pegu farm, and 250 from the Toungoo farm. White bean (*pèbyugale*) seed to the amount of 84,000 lbs. was issued from the Hmawbi Station and various farms. Cotton seed to the amount of 14,360 lbs. was distributed chiefly from the Tatkôn Station and the Meiktila farm. Seed of groundnut, 86,000 setts of sugar-cane, 1,125 lbs. of jute seed and small quantities of seed of sessamum, wheat and onions were also issued. From the Mandalay Station over 5,250 baskets of rice seed, and from the Padu sub-station 1,220 lbs. of cotton seed were issued. A little wheat and gram were also distributed. The department not only issues seed of varieties tested on its farms but also buys and distributes seed which the public would otherwise have difficulty in obtaining such as wheat and *pèbyugale*.

The agricultural stations and sub-stations and district farms are at present the only centres of demonstration of cultivation, but District Agriculturists on their tours explain how the various crops should be grown. The sum realised from the sale of agricultural implements fell from Rs. 4,550 to Rs. 4,276, high prices checking the demand. Cyprus ploughs were popular. Small cattle shows were held at Pakôkku and Pyawbwè to which the department contributed Rs. 350 in prizes.

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Veterinary Department Staff and Veterinary School.

85. The number of Veterinary Inspectors at the end of the year rose from 15 to 17 in Burma proper and remained the same, 2, in the Shan States and the number of Veterinary Assistants rose from 142 to 157 in Burma proper and fell from 19 to 18 in the Shan States. The number of animals treated by the Assistants on tour fell from 70,518 to 34,411 in Lower and from 47,336 to 37,156 in Upper Burma. The cost of the department rose from Rs. 2·87 lakhs to Rs. 3·08 lakhs, chiefly on account of expenditure on subordinate staff and instruction.

The Veterinary School at Insein had 34 pupils at the beginning and 19 at the end of the year; all 14 who entered for the written examination passed and were posted as Veterinary Assistants. The behaviour of the pupils was much better than in the previous year. They were fortunate in the great variety of diseases they had opportunity of seeing and were able to acquire practical experience in rinderpest owing to its prevalence in the neighbourhood. The number of animals treated at the veterinary hospital rose from 2,048, of which 363 were in-patients, to 2,310, of which 309 were in-patients, and the daily average attendance fell from 35 to 32. The number of slides examined at the Laboratory fell from 6,967, of which 3,813 came from the districts, to 6,751, of which 4,198 came from the districts. The number of pupils in the Veterinary School at Taunggyi in the Southern Shan States rose from 4 to 6 and a change of Inspector in charge was made. No breeding operations were undertaken during the year.

Cattle disease.

86. In Lower Burma there was little rinderpest, the commonest of the serious diseases, except in the districts of Amherst and Insein. In the former it was severe in the Kawkareik Subdivision between May and August and was said to have come from Siam. Uncontrolled herds of cattle owned by Indians and disinclination on the part of owners to have their animals inoculated made it difficult to cope with. In the latter district the infection was said to have come from the vicinity of Rangoon. It spread quickly through the large herds of Indian-owned and other cattle near the city to the remote parts of the district. In Upper Burma the disease only appeared in the Bhamo District where it caused over 1,000 deaths. It spread to all parts of the district partly owing to neglect of precautionary measures for which one headman was removed and another fined. The Shan States suffered less than in the previous year.

Anthrax hardly occurred except in the Akyab District where over 500 deaths were recorded and in the Tavoy District where five villages lost cattle.

Mild outbreaks of foot-and-mouth disease took place in the Bassein, Myaungmya, Akyab, Tavoy and Thatôn Districts, in the first of which 254 animals, in the second 203 and in the third 157 died.

The more common of the other diseases reported were hæmorrhagic septicæmia, piroplasmosis, filariasis, scabies, epizootic lymphangitis, surra and glanders. A case of the last was found among the Military Police ponies in Rangoon, four latent cases were detected and the disease was stamped out.

Anti-rinderpest serum was injected in 172 outbreaks and 12,800 cattle were so treated of which 8,464 were treated in the Insein District. Ten Inspectors and 26 Assistants were engaged in the work. The Burmans seem to object to the trouble of getting their cattle inoculated rather than to the inoculation itself; the Indians object to any interference with their animals. About one per cent. of the animals injected were reported to have died.

Great difficulty was again felt in dealing with the cattle owned by Indians for milking, carting and sale purposes in the neighbourhood of Rangoon. The herds are large and seldom kept under restraint and are allowed to pick up a living in the jungle, where in the hot weather grass and water are very scarce, so that their condition is poor. The owners are few and are hardly under the control of the village headmen as they live in the jungle apart from the Burmans and one from another; they give little or no help to the veterinary staff and hardly consent to inoculation of their cattle even when caste prejudices are scrupulously respected and one of their own race performs the operation himself. It was felt that wider powers were necessary to enable the department to deal with the problem.

The working of the rules for segregation continued to improve surely, but, especially in the Shan States, slowly.

The number of deaths among cattle (bovines) in Burma proper from rinderpest, anthrax (under which head are included hæmorrhagic septicæmia and black quarter) and foot-and-mouth disease were 4,698, 1,921 and 1,844, respectively; the corresponding figures for the previous year were 2,058, 2,305 and 5,085; but registration of deaths is not yet perfect and quite unreliable as regards cattle owned by Indians.

Stock.

87. There was remarkably little change in the figures of agricultural stock. The principal kinds, oxen and buffaloes, show slight decreases. The proportion of plough-oxen to plough-buffaloes in the Arakan and Tenasserim Divisions is about 12 to 10; in the Pegu and Irrawaddy Divisions about 27 to 10; in the Sagaing Division about 4 to 1; in the Magwe Division about 8 to 1; in the Meiktila Division about 11 to 1 and in the Mandalay Division the two are nearly equal. In the last four, which lie in Upper Burma, the rainfall, except in the Ruby Mines, Bhamo, Myitkyina and Upper Chindwin Districts the first three of which lie in the Mandalay Division, is comparatively small. The curtailment of grazing land due to the extension of cultivation has induced cultivators to use bullocks instead of buffaloes for ploughing, as the former can be more easily stall-fed.

Horses and ponies are little used for agriculture and chiefly for riding and sport. There is nothing, except the holding of a cattle show in the Yamèthin District, where 2,000 head of cattle were exhibited, to indicate any improvement in the breed of oxen, buffaloes, horses or ponies. The report of the special committee appointed the previous year to inquire into the conditions prevailing in Burma in regard to the breeding, tending, sale and supply of these and other animals and to suggest improvements therein has not yet been dealt with.

Agricultural loans.

88. The agricultural advances made by Government during the year, exclusive of advances made to co-operative societies, fell from Rs. 12·55 lakhs to Rs. 9·25 lakhs. The amount outstanding at the beginning of the year rose from Rs. 13·95 lakhs to Rs. 14·39 lakhs, so that the total amount on loan during the year fell from Rs. 20·50 lakhs to Rs. 23·64 lakhs. The total amount due for collection during the year, excluding interest, fell from Rs. 16·44 lakhs to Rs. 15·39 lakhs. Of this amount Rs. 8·73 lakhs were collected, Rs. 1,100 were remitted and Rs. 1·73 lakhs were suspended.

As usual, there were striking differences in advances and collections between districts. The largest advances were in Yamèthin (Rs. 1·42 lakhs), Prome (Rs. 0·96 lakh), Shwebo (Rs. 0·74 lakh) and Pakôkku (Rs. 0·65 lakh), but in only three other districts, Pegu, Lower Chindwin and Meiktila, did the advances amount to Rs. 40,000. Of the total amount on loan (Rs. 23·5 lakhs) the districts of Kyaukpyu, Prome, Shwebo, Meiktila and Yamèthin held nearly Rs. 11 lakhs and were responsible for more than half the total balance, Rs. 14·90 lakhs, outstanding at the close of the year.

The amount suspended rose from Rs. 1·14 lakhs to Rs. 1·73 lakhs and the amount overdue at the end of the year from Rs. 2·73 lakhs to Rs. 4·74 lakhs. Heavy suspensions were made in the Meiktila and Myingyan, and considerable suspensions in the Shwebo, Kyauksè and Yamèthin Districts; but in only three other districts did the suspensions exceed Rs. 5,000. The districts of Kyaukpyu and Yamèthin each showed over a lakh of rupees overdue. Unfavourable conditions and scarcity of money were the causes of the large amount suspended. Only two other districts, those of Pakôkku and Shwebo, had over Rs. 20,000 overdue.

The amount advanced under the Land Improvement Loans Act fell from Rs. 15,650 to Rs. 13,950 and Rs. 34,736 were outstanding, so that the total sum on loan at the end of the year rose from Rs. 46,854 to Rs. 48,686. Of the sum of Rs. 11,620 due for collection, Rs. 6,410 were collected, Rs. 3,185 were suspended and Rs. 2,264 were overdue. The balance outstanding at the end of the year rose from Rs. 32,736 to Rs. 42,276. Small loans for local irrigation projects were taken in the Prome, Thayetmyo, Yamèthin and Ruby Mines Districts, and in the Hanthawaddy District an advance was made for the purpose of instructing orphan boys of St. Paul's Institution in rubber planting.

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In order to meet the increase from $3\frac{1}{2}$ per cent. to $4\frac{1}{2}$ per cent. in the rate of interest charged by the Government of India to Local Governments on the Provincial Loan Account, the Local Government raised the rate of interest on loans under the Land Improvement and Agriculturists' Loans Acts to $6\frac{1}{4}$ per cent., and this rate was adhered to in spite of the subsequent increase of the rate of interest charged by the Government of India to $5\frac{1}{2}$ per cent. The rate of penal interest on overdue instalments was, however, raised from $6\frac{1}{4}$ per cent. to 8 per cent. The margin left to secure the Provincial Government against loss after paying the interest to the Government of India is therefore now only $\frac{3}{4}$ per cent. During the year of report the net financial result of the loan operations, after repayment of principal and interest to the Government of India and deduction of principal remitted, was a loss of Rs. 19,349, which must be ascribed to the heavy outstandings of interest due both from ordinary borrowers and from co-operative societies.

Protection from floods.

89. Embankments constructed for the protection of cultivation from floods are maintained by the Irrigation Branch of the Public Works Department. The area so protected rose from 697,383 to 810,645 acres; the gross receipts fell from Rs. 22·72 lakhs to Rs. 20·60 lakhs, the working expenses from Rs. 3·20 lakhs to Rs. 2·93 lakhs and the nett receipts from Rs. 19·52 lakhs to Rs. 17·67 lakhs.

The principal embankments lie along the lower course of the Irrawaddy River on its right bank and for these both capital and revenue accounts are kept, but there are others along the Sittang River and in the Ma-ubin District, and elsewhere for which only revenue accounts are kept. The total capital outlay on the former rose from Rs. 41·88 lakhs to Rs. 46·20 lakhs and the outlay during the year from Rs. 1·57 lakhs to Rs. 4·32 lakhs; receipts fell from Rs. 15·99 lakhs to Rs. 13·74 lakhs; working expenses fell from Rs. 2·18 lakhs to Rs. 1·78 lakhs; nett revenue fell from Rs. 13·81 lakhs to Rs. 11·95 lakhs; the percentage of profit derived on the outlay fell from 32·97 to 25·87; and the area protected rose from 498,462 acres to 608,457. From the latter the receipts rose from Rs. 6·72 lakhs to Rs. 6·86 lakhs; the working expenses from Rs. 1·02 lakhs to Rs. 1·15 lakhs; the nett revenue from Rs. 5·708 lakhs to Rs. 5·713 lakhs; and the area protected from 198,921 acres to 202,188.

The work of training the Yenwè River in the Pegu District was continued. The result was satisfactory, except for the accumulation of sand at the tail of the embankments. The Inspector-General of Irrigation visited the work. The embankments must still be raised and extended. The railway bridge over the river was raised by the Railway Company during the year to prevent jams of logs which endangered its safety. Retirements were made on the Sittang River Embankment in the Pegu District. Work continued on the embankment round the Yandoon Island in the Ma-ubin District and Rs. 2·81 lakhs were spent on new works and maintenance.

Weather and Crops.

Character of the seasons.

90. The agricultural season of 1917-18 was on the whole a good one. In Lower Burma the rainfall was sufficient and, a fact of more importance, evenly distributed, except for a heavy burst of rain in November, which adversely affected the ripening rice. In Upper Burma the early rains were insufficient in several districts, but the latter rains were generally plentiful.

In the Arakan Division damage was done by excessive rain in the middle of November. In the Pegu Division the season was more than usually favourable. There was little or no flooding from the Irrawaddy River and the people of the Tharrawaddy District said it was the best they could remember. In the Irrawaddy Division heavy rain in December and January did some damage to the rice after it had been reaped. There was considerable flooding from the Sittang and other rivers in the Tenasserim Division.

In the Magwe Division the early rains and in the Mandalay Division the middle rains proved a disappointment; in the Sagaing and Meiktila Divisions breaks in the rains did much damage to the crops.

Outturns and prices.

91. The total estimated outturn of unhusked rice rose from 6,967,641 tons to 7,075,547. The Akyab and Kyaukpyu showed very large and the Myaungmya and Toungoo Districts considerable decreases. These were counterbalanced, however, by a large increase in the Tharrawaddy and smaller ones in the Bassein, Henzada, and other districts. The yield of cleaned cotton increased from about 6,000 tons to 9,643; that of groundnut fell from 106,594 tons to 101,603. The most remarkable increase in outturn was shown by the small variety of white beans, namely from 49,584 tons to 140,277. The outturn of wheat increased from 6,425 tons to 7,483; that of maize (grain) from 34,067 tons to 36,879; and that of white millet from 17,136 tons to 19,565. The outturn of red millet fell from 56,778 tons to 51,963 and that of sessamum from 84,500 tons to 80,615. The customs figures show that the quantity of rubber exported rose from 2,301,157 lbs. to 2,634,380.

In April 1917, the price of unhusked rice in Rangoon fell suddenly from Rs. 120 per 100 baskets of 46 lbs. weight each to Rs. 105 and then more gradually to Rs. 100. In the beginning of July the price fluctuated between Rs. 100 and Rs. 105, but little business was done. Owing to continued scarcity of tonnage prices fell to Rs. 80 in September, but then rose to Rs. 98 in the end of November and to Rs. 130 in the middle of December and fell again to Rs. 100 at the end of the month. In the beginning of January 1918, the available surplus of the previous year's crop was estimated to be about 400,000 tons of cargo rice, and in this month the new crop began to reach the Rangoon market. The mills and godowns in Rangoon became full of the grain and there was a scarcity of ships to export rice and so the price fell till it reached Rs. 85 in the middle of February. Even at the end of that month large quantities of grain were still on the threshing floors. Early in March some ships arrived and the price gradually rose to Rs. 93 at the end of the month. Want of tonnage caused the price to fall again in April. In May the market was quiet, but the hope of fresh tonnage caused the price to rise to about Rs. 90 at the end of June.

Partial failure of the crop caused a rise in the price of sessamum and the increased demand a rise in that of cotton, but the price of millet decreased and that of white beans declined very greatly from the abnormally high figures of the previous year. Generally speaking the cultivators in Upper Burma obtained extremely good prices for their main crops.

Steps are being taken to improve the record and statistics of prices of the principal crops.

Co-operation.

Administrative and General.

92. There was little increase in the number of districts in which operations were proceeding. The first union in the riverine portion of the Ruby Mines District was established; further development took place in the Pakôkku and Myingyan Districts; numerous new societies were registered in the Shwebo and Mandalay Districts; and a beginning was made with the formation of societies in the Shan Hills. In Lower Burma there was urgent demand for co-operative propaganda in the Thatôn, Amherst and Myaungmya Districts; expansion into new areas is only undertaken where conditions are thoroughly favourable to success and the Deputy Commissioner approves. Unions continued in the more fully-organised districts to be the main agency for propaganda, but such districts were few and in those of Shwebo, Kyauksè and Pakôkku only was the Government staff entirely relieved of direct propaganda work.

The administration of the department remained almost unchanged. The departure of the Joint Registrar, Upper Burma, to join the army threw much additional work on the Registrar and to relieve him additional powers were delegated to Assistant Registrars. The appointment of a separate Assistant Registrar for urban societies proved very successful. A scheme for the direct recruitment of university graduates for employment as Junior Assistant Registrars was put intoeffect.

The cost of the department in pay of staff and contingencies rose from Rs. 1·55 lakhs to Rs. 2·46 lakhs. The sum spent by societies in management and on contingencies rose from Rs. 2·05 lakhs to Rs. 2·82 lakhs.

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The number of societies of all kinds rose from 2,575 to 3,056; central banks rose by the establishment of one at Moulmein, chiefly for the Thatôn and Amherst Districts, from 3 to 4; unions from 207 to 240; non-agricultural credit societies from 54 to 87; agricultural credit societies from 1,934 to 2,279; and cattle insurance societies from 324 to 379. The societies of silk-weavers at Amarapura appeared to lose in financial strength owing to a succession of bad years.

The Tharrawaddy District showed an increase of 47 agricultural credit societies and Shwebo of 44. The increase was well distributed and, as before, the districts possessing the best existing societies showed the greatest increases. The war continued to affect but not seriously to restrict development and, as a cautious financial policy was in consequence desirable, loans for land purchase, settlement of large debts and other such objects was discouraged. It is felt moreover that even under peace conditions such objects could not be effected by existing methods of co-operative finance as persons borrowing for such purposes could not repay in four years and the banks, depending for their funds on deposits for terms of not more than five could not afford to have their money locked up in long-term loans. The feasibility of the issue of long-term or irredeemable bonds secured on land mortgages either by special land-mortgage banks or preferably by the Provincial bank itself is under consideration. The members of agricultural co-operative societies rose in number from 42,877 to 50,213; the average number in each society remained the same, 22; the average loan of each member rose from 155 to 165; the average repayment of principal to the society was Rs. 41, or 25 per cent. of the whole loan; and the societies repaid 30 per cent. of their outside liabilities during the year, which was satisfactory in view of the low price of rice. Fifty-three societies were unable to reduce their loans and the interest outstanding at the close of the year increased, but the general record was good, considering the unfavourable circumstances of the year. District conferences were again held in all the chief districts in which co-operation has been established. The subjects discussed were not merely technical, but included all those affecting local economic interests.

The working capital of all classes of societies rose from Rs. 1,40·68 lakhs to Rs. 1,60·80 lakhs, or, if the capital deposited or invested by one with or in the business of another is excluded, from Rs. 94·99 lakhs to Rs. 98·61 lakhs. The proportion of owned to total capital remained the same, 28 per cent. Considerable amendments were made in the bye-laws, but none in the Act itself or the rules framed under it. The views of Burman co-operators on the Indian Reforms were submitted to the Viceroy and the Secretary of State. The leading men in all parts of the Province and especially the headmen in Upper Burma showed increased interest in the work of the department.

Unions and Central Banks.

93. The unions, which increased from 207 to 240, continued to be the chief administrative agency of the co-operative movement and showed steady growth in efficiency. Their faults were mainly due to ignorance and the remedy is a higher standard of knowledge and ability to teach among the staff of the department and better provision for the instruction of officers of unions. There has been a great advance in co-operation in the past few years and for this the Province is indebted chiefly to the chairmen and vice-chairmen of the unions.

The Upper Burma Central Bank in Mandalay is the Provincial Co-operative Bank of the Province. It had again a successful year and began to reap the reward of the conservative policy adopted since the beginning of the war. The paid-up share capital increased from Rs. 2·51 lakhs to Rs. 2·69 lakhs; loans to individual members fell from Rs. 53·54 lakhs to Rs. 14·12 lakhs and to central banks and societies from Rs. 30·70 lakhs to Rs. 29·20 lakhs; recoveries of loans and deposits (principal only) made by individual members rose from Rs. 5·87 lakhs to Rs. 12·56 lakhs and by central banks and societies from Rs. 19·09 lakhs to Rs. 23·91 lakhs; and loans and deposits from individuals (including members in an individual capacity) decreased from Rs. 71·42 lakhs to Rs. 44·04 lakhs. The amount of loans due from banks and societies rose from Rs. 39·25 lakhs to Rs. 44·49 lakhs; the market value of investments from Rs. 5·76 lakhs to Rs. 14·80 lakhs; the total assets from Rs. 50 lakhs to Rs. 61·67 lakhs; and the liabilities from Rs. 49·78

lakhs to Rs. 61·17 lakhs. The profit on the year's working was Rs. 1·08 lakhs and a dividend of 5 per cent. was paid for the year. CHAP. IV.—PRODUCTION AND DISTRIBUTION.

After setting aside Rs. 12,278 to meet depreciation on its securities the bank added Rs. 60,586 to its general reserve and also provided Rs. 7,000 as a reserve against the interest due from societies under liquidation. Its reserve funds are now Rs. 1·70 lakhs. The bank held Rs. 14·79 lakhs in Government securities, over Rs. 10 lakhs of which were in Indian or Home War Loans. Its policy is to amass large reserves and so provide complete security for depositors—not to declare high dividends. The war, by raising the price of money, greatly narrowed the margin at which the bank had to work, but the additional one per cent. interest paid by all societies as a direct contribution to the reserve more than counterbalanced this and its reserves increased. The Bank continued to hold the fluid resource for the whole co-operative movement and the standard recommended by the Committee on co-operation was maintained. The cash credit system worked well and supervision of operations under it improved.

The newly established Central Bank at Moulmein was still collecting its share subscriptions during the year. The Bank at Pakôkku showed a profit of Rs. 5,000; its deposits from sources other than the Provincial Bank rose by 25 per cent; and the proportion of repayments by affiliated societies to the total loans was 20 per cent. The Sagu-Salin Bank, whose clients include less satisfactory societies in the Minbu District, showed a heavy loss and large outstandings of interest due and the proportion of repayments was only 9 per cent. The bank at Pegu added all the societies in the Pegu District to its clients and thereby increased its working capital from Rs. 1·62 lakhs to Rs. 4·56 lakhs, but additional advances were taken from the Provincial Bank and direct deposits showed little tendency to increase; the proportion of payments was 24 per cent. Steps were taken to supply these last two central banks with a staff properly trained in book-keeping.

94. Agricultural Credit Societies increased not only in numbers and membership but also in efficiency. Members began to exercise more control over the action of their chairmen and committees. The tendency to allow one or more prominent members large loans on which repayments are not punctually made was combated by steps taken to enable central banks to exercise direct supervision over the repayments made by individual members of societies who hold large loans and to restrict the credit of such societies if punctuality in payment is not observed. **Agricultural Credit Societies.**

The number of societies, the registration of which was cancelled, fell from 34 to 32 and the number in liquidation reached the total of 111. Liquidation was completed in the case of 31 and was impeded by unnecessary forbearance on the part of the liquidators. The audits of the year classified 49 as A, 266 as B, 931 as C and 398 as D, figures which are much the same as those of the previous year. The poorest results were shown by the districts of Yamèthin, Minbu and Mandalay. In Burma a society is classed A or B if a high standard of efficiency has been attained; C if its members and officers are not yet efficient; and un-co-operative societies are classed D.

95. Work was continued in four special areas in which land is being colonized under the auspices of the department, namely the Môn Canals in the Minbu District; the Kadônbaw, Singyun and Yitkangyi disforested reserves in the Hanthawaddy and Pegu Districts; four villages near Ela in the Yamèthin District; and the Namyin, and Namti valleys in the Myitkyina District. In the first the harvest of rice was good, but prices were very low and sale of produce was often very difficult, but the Government advances outstanding were reduced from Rs. 1·46 lakhs to Rs. 1·15 lakhs. Steady but slow advance was made, the feeling of inter-union responsibility developed and it became possible to distinguish between the societies bound to succeed and those ripe for cancellation. **Colonization areas.**

In the second the union system, a much needed reform, was introduced during the year. Three Unions now exist. The Zibyubin Union consisted of seven societies whose 252 members cultivated 10,575 acres of rice land and repaid interest

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on its loans in full, reducing them from Rs. 3·36 lakhs to Rs. 3·34 lakhs. The Yegyaw Union consisted of six societies whose 241 members cultivated 8,900 acres of rice land and repaid interest on its loans in full, reducing them from Rs. 2·75 lakhs to Rs. 2·60 lakhs. The Emun Union consisted of seven societies whose 245 members cultivated 8,790 acres of rice land and repaid interest on its loans in full, reducing them from Rs. 2·64 lakhs to Rs. 2·38 lakhs. Joint sale of the crop was not so successful as in previous years, but the newly formed unions will probably find a remedy. Two societies of the colonists were rejected by the unions and placed in liquidation. An additional area of 29,690 acres was handed over to 525 colonists organised into 21 societies and a little over 3 lakhs of rupees was advanced to them.

Two of the societies near Ela prospered during the year, but it was decided to wind up the others. In the Namyin valley 11,000 acres were allotted to 311 persons organised into 13 societies forming the Namti Union and a lakh of rupees was advanced to them. The valley is fertile and prospects are bright if prices of produce improve. The Hopin Union continued to show progress in spite of the low price of rice. The Pinbaw Union suffered from the non-completion of railway culverts to facilitate irrigation, but maintained its existence. There is little room left for expansion in the area with which it deals, but much waste land still remains in that dealt with by the Hopin Union.

Other Societies.

96. Of other forms of co-operative societies non-agricultural credit societies increased their membership from 5,002 to 8,732; their object is not only to provide funds for their members but to foster trade between towns and eliminate middlemen. Societies of artisans increased little, and progress must await the appointment of a special Junior Assistant Registrar. The lacquer workers at Pagan formed a union to develop joint production and sale and get into touch with British merchants during the year and the pottery societies in the Shwebo District continued to progress.

The most important are the Urban Societies of traders and shop-keepers which are springing up in the towns of the Province. The townsman in Burma has proved himself provident and ready to subscribe to them. The conference of Registrars held at Simla were of opinion that there was room both for them and for Post Office Savings Banks.

The number of societies for co-operative sale increased from 40 to 46 and their membership fell from 2,985 to 2,319. Railway sleepers, wheat, beans and rice were the commodities chiefly dealt with and the low prices of rice stimulated the interest of the members of co-operative societies in joint sale.

There was one cattle re-insurance society as in the previous year. The cattle insurance societies increased their membership from 5,248 to 6,130. Several of them, however, were not working and 182 were in arrears with their premia to the Central Re-insurance Society. The amounts both of risk insured and of premia collected fell and the claims paid were only 1·3 per cent. of the risk insured, in spite of a rise in the percentage of deaths from 1·5 to 2·3.

Horticulture.

Agri-Horticultural Societies.

97. The Agri-Horticultural Society of Burma with headquarters and a garden at Rangoon is the only society of its kind in the Province. The membership of the society fell from 221 in 1916 to 217 in the year of report. The revenue account for the year showed a loss of Rs. 2,113, or Rs. 1,316 more than in the previous year. Receipts rose from Rs. 40,901 to Rs. 41,213 and expenditure from Rs. 41,698 to Rs. 43,326. The chief items in the former were grants, members' subscriptions, sales of plants, etc., and rents; in the latter charges of establishment, repairs and depreciation. The Forest Department of Government established a museum of forest products in the Council Hall in the garden. The society held a flower show in February 1917 to which exhibits from school gardens in or near Rangoon were admitted. The Education Department of Government has taken an active interest in such gardens and the society hopes

to arrange exhibitions for them in the future. The sales of plants, flowers, seeds, etc., realised about Rs. 20,000, much the same as in the preceding year.

Forests.

Forest reserves, unclassed forests, settlement, demarcation, survey and working-plans.

98. An enquiry showed that there were only 13,121 square miles of forest possibly suitable for reservation out of a total area of explored unreserved forest of 59,005 square miles and that about 50,000 square miles of forest remained unexplored, excluding forest in unadministered territory. At the beginning of the year of report the area of reserved forest was 18,670,663 acres (29,110 square miles) and during it 3,524 acres were added and 137 disforested; at the same time that of unreserved forest was estimated at about 70 million acres about 109,400 square miles) of which about 26,000 were lost by cultivation during the year; at the same time 1,107 square miles were under forest settlement; and 146 square miles were begun to be settled during the year. The length of forest boundaries demarcated for the first time fell from 366 miles to 204, the cost being Rs. 3,644. Survey was carried on by the Survey of India in several of the forests in the Ataran Division and two reserves in the South Tenasserim Division.

Working-plans were sanctioned for 194 square miles of the Upper Thaungyin forest in the Amherst District, 226 in the North Zamayi in the Pegu District, 162 in the Indaung in the Ruby Mines District, 158 in the Plains forests of the Meiktila Division, 420 in the North and South Gangaw forests in the Pakôkku District, and the whole of the Saing Yané forest in the Toungoo District. The cost of the working-plans varied from Rs. 13 to Rs. 110 per mile. A revised scheme for girdling in the Zigôn Division in forests for which working-plans are not likely to be made, was sanctioned, and the schemes for the Ataran and Mu Divisions were revised. It was again found that the trees found fit for girdling were always much in excess of the estimates. Schemes for the extraction of teak from rice fields were prepared for several divisions; 3,868 such trees were girdled in the North Toungoo Division and nearly as many marked to indicate that as they were not worth selling by the department the cultivators might cut them for their own use. Schemes for the exploitation of timber other than teak were under consideration and those for the supply of fuel especially to the Railway Company in view of the scarcity of coal worked well. Proposals were made to ensure the supply of fuel for the salt industry in the Amherst District and poles of *In* wood for rafting in the Myittha Division.

Protection of forests.

99. The number of detected offences against the Forest laws fell from 6,306 in 1916-17, which was an unusually high figure, to 5,000 in the year of report, of which twenty were injuries to the forests by fire, 3,436 unauthorised fellings or removals (a decrease of 871), 330 cases of unauthorized grazing and 1,214 other offences. The number of cases taken into Court fell from 1,144 involving 2,153 accused to 926 involving 1,729 and the percentage of persons convicted fell from 83·7 to 82·1 and of cases in which conviction was obtained from 87·6 to 85·9. The number of cases compounded by Forest Officers fell from 4,851 to 4,056 and the composition from Rs. 54,739 to Rs. 47,756. About Rs. 8,000, considerably more than in the previous year, was paid in fines for breaches of contract, etc., by lessees, contractors, etc. New rules for the protection of game were brought into force during the year.

The area over which protection from fire was attempted during the year fell from 1,583,178 acres to 1,119,818, the percentage of the area actually protected from 96·5 to 96 and the cost per square mile attempted from Rs. 46 to Rs. 44. Thirty fires, destroying 2,306 acres, were due to departmental operations or crossed outer traces; 45, destroying 4,659, to workmen, licensees, villagers, travellers, etc.; 38, destroying 34,603, were attributed to malice, driving of game, etc.; and 29, destroying 2,683 to causes unknown. Of the whole area of reserved forest 77·5 per cent. was again closed to all cattle during the year; 21·7 per cent. was open to all animals except browsers for the whole or part of the year; and the rest was open to all animals part of the year.

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The number of cattle impounded rose from 4,918 to 4,963, of which about five-sixths were impounded in the Southern Circle. Except in areas under regeneration or worked as coppice grazing does little harm, but involves the risk of infection of lessees' elephants with disease such as anthrax and the admission of herdsmen into reserved forests. Wild elephants caused, as usual, damage to teak plantations and boundary marks; wild cattle (*saing*) to saplings, coppiced shoots and cutch trees; and deer to teak and *yamane* trees. Insects destroyed casuerina seeds in Tavoy; weeds, such as *bizat* and *ponmathein* choked young growth in the Amherst District; a cyclone in the Insein District uprooted many trees in a teak plantation; and damage was also caused in Pegu and other districts by floods and landslides.

Improvement of forests.

100. Seventy-six miles of new cart-road were constructed chiefly in the Pegu and Tenasserim Circles at a cost of Rs. 277 per mile and 279 miles of new bridle path at Rs. 174 per mile and the expenditure on new roads increased from Rs. 54,707 to Rs. 71,764 and on repairs from Rs. 46,803 to Rs. 59,070. It was found that the opening of a new road led to increased extraction and the outlay was quickly recovered. The expenditure on new buildings rose from Rs. 38,160 to Rs. 66,540 and on repairs from Rs. 54,430 to Rs. 62,589, but operations were restricted by the high price of materials though the housing of subordinates and the provision of rest-houses, especially necessary owing to the advent of intensive sylviculture, were felt to be urgent matters. The amount reported by lessees to have been spent by them during the year on clearing streams (for floating timber), on roads and on buildings rose from Rs. 1·69 lakhs to Rs. 1·80 lakhs.

Operations to aid or induce reproduction of teak, such as felling bamboos and other trees, burning and weeding continued and one or two small experiments to the same end were carried out. The area of plantations on hillside clearings fell by about 200 acres and the area devoted to other forms of artificial reproduction rose by about 600 acres. The continued efforts to reforest the Kamasè Reserve in the Pegu District failed and so did an attempt to grow *dhani* (Nipa palm) in the same district from seed for use as thatch.

Exploitation of timber.

101. No change took place in the system of management of the forests during the year. Grazing fees including proceeds of sale of grass rose from Rs. 11,335 to Rs. 11,672. The scarcity of leather and tanning materials created a demand for certain barks hitherto unused found chiefly in the dry zone. The number of marketable teak trees girdled, felled outright or marked for green felling, because they could not be girdled, fell from 212,623 to 203,785, the decrease being marked in the Tenasserim Circle. The outturn of teak by departmental agency rose from 78,363 tons to 91,057 and was chiefly confined to the Divisions in the Pegu Circle which lie on the western slopes of the Pegu Hill Range. A reduction in the rates paid to contractors for felling and extracting the timber was made and steps were taken to see that trees giving the best value were cut and not those easiest to extract. The number of teak logs salved rose from 25,821 to 28,562, partly owing to floods in the Pegu and Tenasserim Circles. The quantity of teak sold by auction at the Rangoon depôt rose from 20,766 cubic tons to 24,196, but the average price per ton fell from about Rs. 60 to about Rs. 54, the decrease being attributed to lack of shipping. Nearly half was bought by Chinese and only 1 per cent. by Burmans. The quantity of teak supplied to the Admiralty fell from 1,087 tons to 500 and to the Royal Indian Marine from 2,179 tons to 1,075. In order to assist the local building of wooden ships 455 tons of suitable timber were sold privately by the Rangoon Depôt. The quantity of *padauk* supplied to the Gun Carriage Factory at Jubbulpore fell from 340 tons to 137. The department continued to supply boxes made of *yamane* or *thabye* for packing rubber.

The quantity of teak extracted by lessees fell from 313,660 tons to 276,896, chiefly owing to the bad season for floating in Upper Burma. Scarcity of staff of both the department and the lessees led to simplification in the method of calculating royalty by measurement of timber. The difficulty has always been to induce lessees to cut small or defective trees. The quantity of timber extracted

by licensees rose from 204,205 to 398,861 tons, chiefly due to the continued demand for military purposes. The quantity of fuel extracted by licensees rose from 640,897 to 705,703 tons, chiefly owing to the scarcity of coal. The estimated value of the timber extracted by holders of rights and privileges fell from Rs. 4·07 lakhs to Rs. 3·86 lakhs and by holders of free grants rose from Rs. 1·66 lakhs to Rs. 1·67 lakhs, but this includes a sum of Rs. 20,931 paid for timber and fuel by the Burma Mines Company not hitherto included. The outturn of timber and fuel from reserved forests rose from 503,355 tons to 634,983 and from unreserved forests from 974,238 tons to 1,002,495. The outturn of teak from forests of all kinds fell from 402,421 tons to 378,313; of reserved timber (other than teak) fell from 103,084 tons to 101,211; of unreserved timber rose from 244,867 tons to 349,450; and of fuel rose from 727,201 tons to 808,504.

Finance.

102 The financial results of the Forest administration are shown in Chapter V in the section entitled "Revenue and Finance other than Imperial."

Mines and Quarries.

The Indian Mines Act.

103. The only districts containing mines which fall under the provisions of the Indian Mines Act are the Ruby Mines, Thatôn, Mergui, and, by far the most important, Tavoy. In the first, the Mogôk Valley and Kathe Valley ruby mines continued to be worked. Three new mines, all worked by manual labour, were opened in Thatôn. There is only one registered mine, a tin mine, in Mergui and regular mining has not been carried on in it for some years. In the Tavoy District owing to the continued demand for wolfram for munitions the number of registered mines rose from 106 to 140. In 1915 the number was only 68. The output of the year of report was a record and showed an increase of 17 per cent. over that of the previous year. More success was met with in working lodes in the dry weather than from hydraulic methods in the rains. Tin was also largely sought after. Every mine of any consequence is now visited periodically in the district in order to see that as much ore as possible is extracted for munitions and that the Act is obeyed and to offer technical advice. The methods of mining showed steady improvement in regard to safety, mechanical appliances etc. Interest was taken in hydro-electrical schemes. The geological survey of the district has been completed over three-quarters of its area and great progress was made in improving communications. Visits of inspection were made by the Sanitary Commissioner and the Protector of the Chinese.

In May of the year of report the first and only Mining Advisory Board in the Province met at Tavoy and has held monthly meetings ever since. Its members are the Deputy Commissioner, the Inspector of Mines, the Executive Engineer and four representatives of the mining community and it did much useful work, especially in arranging a series of free technical lectures.

The health of the employees was generally good, but, as usual, there were several outbreaks of malaria. Special attention was paid to this disease in the Tavoy District where a malarial survey was in progress. Dysentery and diarrhœa were common and beri-beri appeared among the coolies from Hazaribagh who are conspicuous for their bad health and work for lower wages than others and often go underfed in order to send money home. A few convicts from the jails were employed during the year in the Tavoy District on ticket-of-leave with fairly satisfactory results. Wages of employees were much the same as in the previous year. Those of coolies from Hazaribagh rose in the Tavoy and Mergui Districts from Rs. 12 to Rs. 15 per month and in the former those of skilled labourers such as sawyers, smiths, carpenters, engine-drivers and mechanics increased. Large numbers of the Chinese labourers imported into the Tavoy District in 1915 and 1916 have left it. Women and children are still employed in mines in the Thatôn and Tavoy Districts. This is due to the customary tribute system under which the owner of the mine purchases at a fixed price from the labourer all the ore he produces. Whole families share in the work of production. There were two serious accidents in the Ruby Mines District. The rest occurred in

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the Tavoy District where there were 20 fatal and 3 serious accidents involving the loss of 21 lives and serious injury to 32 persons; none of these were due to explosives and most of them occurred in mines worked under the tribute system in which supervision is apt to be lax. The improvement of communications facilitated the medical treatment of the injured. As in last year no prosecutions were instituted under the Act during the year of report.

New concessions.

104. During the calendar year 1917, the number of new applications for prospecting licenses dealt with was 528 of which 209 were granted, 150 refused and 169 withdrawn. The corresponding figures for the previous year were 645, 271, 213 and 161. The number of applications for renewal of prospecting leases dealt with was 194 of which 171 were granted, 12 refused and 11 withdrawn. The corresponding figures for the previous year were 104, 82, 14 and 8. The number of applications for mining leases dealt with was 16 of which 12 were granted, 2 refused and 2 withdrawn. The figures for the previous year were 27, 1, 14 and 12. These figures illustrate the continued activity in prospecting and in mining in the Province, especially in the Thatôn, Amherst, Tavoy and Mergui Districts of the Tenasserim Division and to a much lesser extent in the Thayetmyo District and the Southern Shan States Of the 12 mining leases one was granted for lead, copper and silver, another for mineral oil, four for wolfram and tin and six for all minerals except oil and precious stones. At the end of the calendar year 166 applications for prospecting leases and 17 for mining leases were pending. The figures for the previous year were 138 and 21.

Petroleum.

105. During the three years 1914—16 the output of petroleum increased steadily and in 1916 reached the highest figure recorded, 291·77 million gallons. In the year of report there was a fall to 272·80 million gallons in quantity and from Rs. 1,65·14 lakhs to Rs. 1,57·80 lakhs in value. Six districts, one (Myingyan) less than in the previous year, Akyab, Kyaukpyu, Thayetmyo, Pakôkku, Minbu and Magwe, produced petroleum during the year of report, but the first three together produced less than 100,000 gallons; Pakôkku 6·62 million gallons; Minbu 3·49 millions; and Magwe 262·62 millions to which the Yenangyaung oil-field contributed 176·98 millions and the Singu oil-field 85·64 millions.

There was a decrease in production due to natural causes from the Yenangyaung field from 199 million gallons to 177 millions and it accounts chiefly for the decrease in the output of the Province. This field yielded over 80 per cent of the total output of the Province in 1909 and 1910, but only about 67 per cent. in the period 1911—16 and 65 per cent. in the year of report.

The output from the Singu field rose slightly during the year and was 11 per cent. more than in 1915

The yield of the Yenangyat field in the Pakôkku District rose from 4 million gallons in 1915 and 5·3 millions in 1916 to 6·6 millions in the year of report; the increase is attributed to the tapping of lower strata by the deepening of several wells.

The production of the Minbu field, which began in 1910, is the highest since 1912 and the outlook is promising. The result of boring in the Minhla field in the Thayetmyo District was disappointing.

The winning of petroleum in the Magwe District employed 9,156 men during the year. Preparations were made for operations in the Upper Chindwin District.

Wolfram.

106. Owing chiefly to the special measures taken by Government in the previous year and also to improvement in methods of mining the production of wolfram increased from 3,652 tons valued at Rs. 72·42 lakhs to 4,529 valued at Rs. 91·71 lakhs in the year of report. As usual the great bulk of the ore was obtained in the Tavoy District which produced 3,697 tons, or 663 more than in the previous year. The Mergui District increased its production from 340 tons to 368; the Thatôn District from 91 tons to 107; and the Southern Shan States from 214 to 356. The tungsten ore obtained in the last is extracted from a concentrate containing wolfram and tin ores in almost equal quantities which is found near Mawchi in the Bawlake State and the outturn of which increased from 428 tons to 712.

The price of wolfram remained unchanged during the year of report, but early in 1918 it was raised five shillings per ton and certain other concessions were made in order to meet the heavy rises in the rates of freight, insurance, etc.

The most interesting event of the year was the discovery in July 1917 of wolfram on the border of the Yamèthin District and the Loilong State in the Southern Shan States. In this new field there is no tin, but large quantities of molybdenite are found with the wolfram. Wolfram mining employed 11,417 men, 720 women and 298 children during the year and 10,362 men, 1,010 women and 194 children in the previous year.

Rubies, Sapphires and Spinels.

107. The output of Rubies, Sapphires and Spinels has decreased steadily for the past few years. Thus in 1914 it amounted to 304,872 carats; in 1915 to 251,449; in 1916 to 209,724; and in the year of report to 198,200. Owing to a rise in price however the value of the output increased from Rs. 5·63 lakhs in 1916 to Rs. 7·77 lakhs, but is still less than that of any of the five years 1909—13. The Ruby Mines is the only district in the Province which produces these stones and 1,245 men were employed, 43 more than in the previous year. The amount of the rubies produced was 132,409 carats valued at Rs. 6·54 lakhs; of sapphires, 32,369 carats valued at Rs. 1·20 lakhs; and of spinels, 33,422 carats valued at Rs. 0·04 lakh. The ruby was peculiar in showing no rise in price except for inferior stones. Sapphires were in great demand in Paris and fine stones fetched very high prices.

Other minerals.

108. The output of amber, which is found only in the Myitkyina District, rose from 5 cwts. valued at Rs. 2,360 to 59 cwts. valued at Rs. 10,260. This was due to an increase in demand by Chinese traders in Burma. The Laisai mines, situated in unadministered territory to the west of the Jade Mines, were opened in the year of report.

The output of antimony ore, which is found only in the Amherst and Thatôn Districts, fell from 1,000 tons valued at Rs. 7,500 to 115 tons valued at Rs. 2,287. This was due to the rise in the cost of production owing to the inaccessibility of the present workings in the former district. The ore was found in the Thatôn District for the first time in the year of report, but the production was only 10 tons. Fifty-five persons were employed in the industry during the year.

Bismuth was discovered in the Tavoy District in the year of report and about 5 cwts. valued at Rs. 2,451 were produced.

There has been a steady decline in the output of gold in the past few years. It was worked only in the Myitkyina, Katha and Upper Chindwin Districts in the year of report. The output of the first fell from 1,901 ounces valued at Rs. 1,09,300 to 1,006 ounces valued at Rs. 58,428 and the output for the Province fell from 1,983 ounces valued at Rs. 1,15,638 to 1,079 ounces valued at Rs. 63,718. The dredging company has now ceased operations.

The output of iron ore increased from 16,081 tons to 28,763. It is used as a flux for smelting in the furnaces at the Bawdwin lead mines and so its sale value cannot be accurately determined. The only two places which produce it are Mandalay and the Northern Shan States and about 450 persons were employed in its extraction during the year.

Silver is obtained as a bye-product in the extraction of lead at the Bawdwin mines in the Northern Shan States. The output rose from 759,012 ounces valued at Rs. 13·28 lakhs to 1,580,557 ounces valued at Rs. 35·56 lakhs. There has been a steady and very remarkable increase in production since 1914 when only 236,446 ounces valued at Rs. 4 lakhs were extracted.

Lead is found at the Bawdwin Mines and to a small extent in the Southern Shan States. The output from the former has increased remarkably since 1914 when 10,548 tons were extracted; it rose from 13,790 tons valued at Rs. 48·31 lakhs in 1916 to 16,963 tons valued at Rs. 59·37 lakhs in the year of report. Some 147 tons of lead ore and slag valued at Rs. 25,122 were produced in the Southern Shan States.

Molybdenite was found in considerable quantities for the first time during the year of report on the border of the Yamèthin District. Tavoy was the only district

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which produced this ore during the year and the output rose from 8 cwts. valued at Rs. 1,373 to 33 cwts. valued at Rs. 11,452.

Platinum is obtained in conjunction with gold in the Myitkyina District and the decrease in its production was due to the same cause as that in the production of gold. The output fell from 9·25 ounces valued at Rs. 694 to 3·79 ounces valued at Rs. 287.

The increase in the production of tin ore continued. In 1909 the output was only 83 tons; in 1912 it was 175; in 1915, 265; in 1916, 503 tons valued at Rs. 6·78 lakhs; and in the year of report 623 valued at Rs. 10·05 lakhs. More than half the yield is obtained (see paragraph 106) from a concentrate of wolfram and tin found in the Bawlake State, but the Thatôn, Tavoy and Mergui Districts produced 99, 88 and 77 tons respectively and the Amherst District 2. The contribution of the Thaton District was double that of the previous year as a new field was discovered, but that of Tavoy and of Mergui decreased. The block tin produced in the last district rose from 113 tons to 141 valued Rs. at 4·19 lakhs.

No zinc ore was produced in the year of report. Before the war zinc concentrates obtained at the Bawdwin Mines were exported to Belgium and Germany. Zinc has not yet been smelted at the mines.

The price of jadeite, which is found in the Myitkyina District, has varied since 1911, but its output has gradually increased; it rose from 3,783 cwts. valued at Rs. 1·40 lakhs in 1916 to 3,961 valued at Rs. 4·34 lakhs in the year of report; the high value in the latter year is due to the finding of a large quantity of jewel and ornamental jade for which there is a good market. Commercial jade decreased in value owing to the want of facilities for shipping it.

Other minerals of minor importance found in the Province are blue stone, blue limestone, andesite, olivine andesite, white pebbles, steatite and soap-sand. No copper was obtained, partly on account of the difficulty of getting machinery. No coal was extracted.

Quarry stones and clay.

109. The output of granite rose from 219,000 tons valued at Rs. 2·75 lakhs to 255,290 valued at Rs. 2·81 lakhs, the increase being due to the opening of a new quarry in the Thatôn District; that of gravel fell from 105,000 tons valued at Rs. 59,000 to 85,355 tons valued at Rs. 38,495; that of limestone rose from 129,000 tons to 199,297 valued at Rs. 2·34 lakhs; that of laterite rose from 220,000 tons valued at Rs. 2·5 lakhs to 280,924 valued at Rs. 2 lakhs, the increase being due to the opening of a new quarry in the Thatôn District (whence most of the supply of the Province was obtained) which had the effect of lowering the price. More than a third of the building materials and road metal produced in the Province come from the Thatôn District and there some 1,700 persons were employed in their extraction. The output for the Province rose from about 900,000 tons worth Rs. 10 lakhs to 1,110,000 worth Rs. 11 lakhs.

Clay for pottery is found chiefly in the Pakokku District, but to a very small extent also in the Magwe and Lower Chindwin Districts.

Revenue from mines and quarries.

110. The receipts from fees, rents and royalties on petroleum, rubies, jade and amber rose from Rs. 32·25 lakhs to Rs. 30·95 lakhs, but were smaller by Rs. 2 lakhs than those in 1915-16. Receipts from petroleum alone had declined by about seven and a half lakhs of rupees in 1916-17 and the figures of the year of report represent a recovery of nearly half of this. Production on the Yenangyaung field had been interrupted to some extent in 1916-17 by a series of fires believed to be incendiary. The main feature of production in the year of report was the further exploitation of the rich sands below 2,000 feet in depth in the Bemè Reserve. The Yenangyat field in Pakokku yielded a slightly increased revenue, mainly owing to the issue of a larger number of prospecting licenses, and receipts from the Minbu field, where the prospects of considerable production are promising, were nearly doubled. The exploitation of the new Minhla field in Thayetmyo proved disappointing, and receipts declined slightly. Larger fees for prospecting for oil were collected in the Akyab, Kyaukpyu and Shwebo Districts.

In the Myitkyina District the revenue derived from fees on licenses to collect royalty on jadestone again rose from Rs. 85,500 to Rs. 95,100. The ruby market continued to improve, and the total of royalty collected in the Ruby Mines District, though still well below the highest figure recorded before the war, showed an increase of over a lakh of rupees.

Receipts from fees, rents and royalties on other minerals fell from Rs. 3·99 lakhs, a record figure, in 1916-17 to Rs. 3·66 lakhs in the year of report, but were still largely in excess of those recorded in earlier years. The Tenasserim Division was responsible for over 90 per cent. of the total receipts, owing mainly to the amount credited as royalty on wolfram. The urgent demand for this mineral continued, and with a view to stimulating production an allowance was made for the enhanced rate of exchange in the price paid by the Home Government from the beginning of September 1917, while from the 1st January 1918 not only were allowances made for the rate of exchange and for increased freight charges, but the price per unit, apart from allowances, was raised from 55 shillings to 60 Nevertheless, the output advanced by less than 100 tons in the Tavoy and declined slightly in the Thatôn and Mergui Districts. The limit of production under existing conditions seemed to have been generally reached in areas already held under lease, while the development of fresh areas was hampered by difficulty in obtaining plant, labour and skilled European supervision and by the lack of facilities for transport. The rise in price was insufficient to counteract these disadvantages. The rate of royalty remained the same, Rs. 60 per ton. The total revenue from wolfram showed a decrease in the Tavoy as well as in the Thatôn and Mergui Districts, owing to the falling off of acreage fees and surface rents with the decline of prospecting activity. In the new wolfram-producing area which was discovered near the boundary between the Yamèthin District and the Loilong Shan State a number of prospecting licenses were issued, but its development had not advanced sufficiently within the year to produce any very marked effect on the revenue. Messrs. Jamal Brothers' wolfram mines at Sabetaung in the Kyauksè District, on the other hand, were found incapable of profitable production and were closed, causing a loss of revenue more than sufficient to outweigh the increase in the Yamèthin District.

The high price of tin induced noticeable prospecting activity in the Amherst, Tavoy and Mergui Districts, and there was some increase in the royalty and rents connected therewith in each of them to set off against the decrease under wolfram.

The Sidôktaya steatite mines in the Minbu District were let for sums greater by Rs. 2,687 than in the previous year. A rather larger number of prospecting licenses was issued in the Mandalay Division, including one for coal in Bhamo, and the total fees and rents showed a rise of nearly Rs. 1,000.

Manufactures.

Principal industries.

111. The census report of 1911 (Volume IX, Part I, pages 298-300) showed that about 72 per cent. of the population of the Province were engaged in agriculture, ten in trade, seven in industry, three in transport, two in professions and liberal arts, and about one-eighth per cent. in the extraction of minerals, and that in industry as in trade and commerce and other occupations Indian immigration had supplied a much-felt want. The chief industries are still rice-milling, saw-milling and the extraction and refining of petroleum. The factories include 329 rice-mills, 108 saw-mills, 15 cotton-ginning, pressing and cleaning mills, 15 oil-mills, 7 iron and brass foundries, 6 petroleum refineries and 6 printing presses. The statistics of average daily attendance show that rice-mills employed about half the industrial population, petroleum refineries about a sixth, saw-mills about an eighth, cotton mills, dockyards and railway workshops each about a thirtieth, foundries a fiftieth and oil-mills insignificant numbers. The eleven Government and Local Fund factories employed daily about 2,000 persons, about a thirtieth of the whole. The destructive distillation of wood and paper-making were industries introduced during the year. A new coffee roasting and grinding factory was established at Toungoo. The high prices of yarn had a retarding effect on the weaving of cotton

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and silk, but the rise in cost of British and foreign piece-goods led to a renewal of weaving in some of the villages of the Henzada District for export to other districts in both Upper and Lower Burma.

Factories.

112. The number of factories registered at the end of the year rose from 516 of which 23 were closed throughout the year to 536 of which 25 were closed throughout the year; many others worked short time or were closed for long periods. Shipping was scarce and the rice-mills, especially in Moulmein, did little work. The average daily number of persons employed during the year rose from 68,362 of whom 4,682 were women and 542 children, to 68,435 of whom 4,845 were women and 518 children. Boys of 14 years of age and over are much used as saw-dust carriers in saw-mills. The number of factories allowing an interval after six hours' work rose from 235 to 241; those exempted under Part C of Schedule I of the Act from 224 to 241; two as last year worked on a system of shifts; and the rest made other arrangements. There was no change in the rate of wages although the shortage in the supply of labour and the high price of cloth and other necessaries would lead one to expect a demand for an increase. The health of the operatives was at least no worse than that of persons otherwise employed in the vicinity and no industrial disease such as plumbism came to notice and plague was again conspicuous by its absence in mills though they are often overrun with rats.

The fencing of machinery improved. Engine flywheels and the main driving belts are provided with fences, which however are not always to be found in place. It is hoped to introduce the use of iron for making fences for machinery after the war when the price will have fallen. The lower parts of rack bench saws are now almost all guarded and the removal of saw-dust will henceforth be less dangerous.

The number of accidents fell from 411, of which 22 were fatal, 99 serious and 290 minor, to 332, of which 16 were fatal, 77 serious and 239 minor. There was thus a considerable improvement. The deaths include 2 caused by *must* elephants; 2 by the falling of a corrugated iron roof during a cyclone; 3 by the careless use of lights near oil; and 2 by waggons—sufficient care is not taken in operating locomotives and waggons in mill compounds. The number of persons convicted during the year again fell from 10 to 7. Of the 511 factories actually working 374 were visited by the Inspector. It is very necessary to revisit a factory after a short interval in order to see that defects brought to light have been remedied and it will be possible to do this when the Assistant Inspector arrives. His appointment has been sanctioned, but is in abeyance till after the war.

The housing of the skilled workers in industrial centres was good, that of unskilled workers fair, and there were no instances of populous areas becoming overcrowded or insanitary through influx of coolies. The high price of building materials, especially corrugated iron, delayed the repair of cooly-barracks, which in some of the villages are very dilapidated. The sanitary condition of the mill buildings themselves improved. The larger rice mills, which as a rule are cleaner than the small mills, were brushed down regularly, and the latter improved in cleanliness. Saw-mills were clean and well ventilated, as they are usually open on all sides, but untidy. Dust is prevalent in rice-mills and ginning factories and the problem of their ventilation is still unsolved. Latrines were well built, but were not usually cleanly kept. The drainage of water used for steeping unhusked rice before boiling still presents difficulty; the nuisance appears to arise only if the period of soaking is unduly long. Many lowlying mill compounds in Lower Burma are being gradually reclaimed by burnt husk.

Trade.

Maritime trade: total value and revenue.

113. In order to prevent misinterpretation of the statistics of the year the general rise in prices since the beginning of the century and the remarkable rise since the beginning of the war must be borne in mind. Thus if 100 be taken to represent the average price of iron and steel in the 3 years ending 1900-01, the

price must be represented as 117 in 1914-15, as 139 in 1915-16, as 219 in 1916-17 and 291 in the year of report. Corresponding figures for dry salted fish would be 130, 131, 136 and 131; for salt 92, 188, 235 and 275; for refined sugar, 100, 137, 143 and 140; for cotton (twist and yarn) 162, 166, 215 and 286; for grey cotton piece-goods 199, 189, 239 and 303; for white cotton piece-goods 169, 150, 196 and 272; for cotton piece-goods (coloured, etc.) 151, 155, 202 and 243; for silk piece-goods 98, 101, 124 and 135, and for woollen piece-goods 166, 184, 284 and 330. The above are imports. Among the exports the corresponding figures for husked rice are 125, 122, 133 and 118; for teak 162, 162, 164 and 183; for raw hides, 170, 188, 209 and 227; for raw cotton 123, 126, 202 and 231; for raw rubber 103, 129, 107 and 95; for pig-lead 158, 197, 311 and 288; and for candles 84, 84, 85 and 84. If an index number is assigned to each commodity according to its importance the average price in the same years for imports would be represented by 133, 146, 195 and 223 and for exports 125, 124, 136 and 123. The prices of the chief imported goods except dried fish and refined sugar were high during the year. The decline in the average price of exports is principally due to a fall in the price of rice and rice bran.

The aggregate value (including that of Government stores) of the Maritime Trade of Burma fell from Rs. 63,41 lakhs to Rs. 58,60 lakhs, or 8 per cent., in the year of report, owing chiefly to the scarcity of tonnage, abnormal rates of freight and war restrictions generally. The average for the 5 years ending 1913-14 was Rs. 60,76 lakhs. The combined value of imports and exports of private* merchandise fell from Rs. 62,63 lakhs to Rs. 57,13 lakhs, or 9 per cent., and the decrease was made up by Rs. 82 lakhs foreign, Rs. 4,65 lakhs Indian and Rs. 2·5 lakhs interportal trade. The average of the combined value of private* merchandise for the 5 years ending 1913-14 was Rs. 60,18 lakhs. In private* foreign trade, the value of the imports fell from Rs. 11,86 lakhs to Rs. 9,85 lakhs, or 17 per cent., but that of the exports rose from Rs. 19,54 lakhs to Rs. 20,72 lakhs, or 6 per cent. Imports from the United Kingdom fell in value by Rs. 1,27 lakhs, from Holland by Rs. 25 lakhs, from the United States of America by Rs. 13 lakhs, from Japan by Rs. 12 lakhs, from Egypt by Rs. 9 lakhs, from China by Rs. 8 lakhs, from Dutch Borneo by Rs. 7 lakhs, from Aden by Rs. 6 lakhs, from Spain by Rs. 5 lakhs, from France by Rs. 4 lakhs and from Italy by Rs. 4 lakhs; those from the Straits Settlements, Java and Hongkong, however, rose in value by Rs. 11 lakhs, Rs 10 lakhs and Rs. 2 lakhs, respectively. Less cotton hosiery was imported from Japan and fewer iron tubes and motor cars were sent from the United States of America. In spite of acute shortage of freight there was a substantial rise in the exports of Burman products to foreign countries, especially of rice, beans and buffalo-hides to the United Kingdom, candles and paraffin-wax to Egypt and Australasia, raw cotton to Japan and raw tobacco to France.

Private trade with India decreased in value from Rs. 28,05 lakhs to Rs. 23,40 lakhs, or 17 per cent.; imports fell slightly from Rs. 9,65 lakhs to Rs. 9,62 lakhs, but exports from Burma to Indian ports fell considerably from Rs. 18,40 lakhs to Rs. 13,78 lakhs. Interportal private trade fell in value from Rs. 3,18 lakhs to Rs. 3,16 lakhs †. The value of Government stores imported from ports outside India and Burma fell from Rs. 10 lakhs to Rs. 7 lakhs; but of stores exported rose from Rs. 5 lakhs to Rs. 19 lakhs; imports from Indian ports rose in value from Rs. 36 lakhs to Rs. 84 lakhs and exports from Rs. 13 lakhs to Rs. 23 lakhs; interportal trade in Government stores remained much the same, about Rs. 14 lakhs, as in the previous year.

The total gross customs revenue collected increased from Rs. 1,69 lakhs to Rs. 1,79 lakhs, or about 6 per cent. Import duty imposed (excluding the duty on salt) fell from Rs. 89 lakhs to Rs. 86 lakhs, the decrease being contributed to by nearly all commodities except sugar and cotton goods. The import duty collected on salt fell from Rs. 18 lakhs to Rs. 15 lakhs. Export duty collected rose from Rs. 62 lakhs to Rs. 78 lakhs, or about 26 per cent. The total net duty collected

* *I.e.* excluding Government Stores.

† The actual value is really about half, as these figures cover both export and import of the same goods.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

rose from Rs. 1,65 lakhs to Rs. 1,76 lakhs. The gross duty collected at Rangoon rose from Rs. 1,58 lakhs to Rs. 1,64 lakhs and was 91 per cent. of the total collected in the Province, and the net duty from Rs. 1,55 lakhs to Rs. 1,60 lakhs. The gross receipts at subordinate ports rose from Rs. 11 lakhs to Rs. 16 lakhs and the net receipts from Rs. 9 lakhs to Rs. 15 lakhs. Among the gross receipts, however, are included Rs. 9 lakhs of export duty collected at Rangoon on rice shipped at Bassein. Receipts were shared as follows :—

Bassein Rs. 10·49 lakhs (showing an increase of Rs. 4·89 lakhs) ; Moulmein Rs. 3·09 lakhs (showing an increase of Rs. 0·57 lakh) ; Akyab Rs. 1·25 lakhs (showing a decrease of Rs. 0·53 lakh) ; Tavoy Rs. 0·39 lakh (showing an increase of Rs. 0·02 lakh) ; Mergui Rs. 0·24 lakh (showing an increase of Rs. 0·05 lakh) and Victoria Point Rs. 0·07 lakh (showing an increase of Rs. 0·01 lakh).

Rangoon trade: total figures.

114. The commodities imported most largely into Rangoon during the year were in order of importance, cotton goods, metals, sugar, silk, machinery, tobacco, hardware, provisions, liquors, soap, matches, parts of ships, building materials and salt, but while the value of the first was Rs. 2,92 lakhs, that of the second was only Rs. 1,02 lakhs and that of the others between Rs. 62 lakhs and Rs. 15 lakhs. A comparison with the figures of the previous year shows that provisions, salt, paper and pasteboard and motor cars have fallen and tobacco, soap, matches, building materials, parts of ships and sugar have risen in importance. Those imported most largely from India were in order of importance cotton (manufactured), jute (manufactured), cotton (twist and yarn), coal, grain and pulse, provisions, spices, tobacco, oils, hardware, metals, fish, seeds, fruits and vegetables, coir and tea and this is almost exactly the same order as in the previous year. The value of the first was Rs. 1,74 lakhs, of the second Rs. 1,25 lakhs, of the third Rs. 93 lakhs and of the others varied from Rs. 54 lakhs to Rs. 7 lakhs. The total value of all articles imported into Rangoon fell from Rs. 11,74 lakhs to Rs. 9,75 lakhs, but that of imports from India rose from Rs. 9,02 lakhs to Rs. 9,28 lakhs. The average of the former for the five years ending 1913-14 was Rs. 12,37 lakhs and the value of the latter for 1913-14 was Rs. 8,22 lakhs.

The principal goods exported from Rangoon to foreign countries were, in order of importance, rice (husked and unhusked), grain and pulse and flour (excluding rice), paraffin-wax, raw cotton, pig lead, raw hides, timber, raw rubber, candles, mineral oils, tobacco and jadestone, of which the first was valued at Rs. 10,79 lakhs, the second at Rs. 1,54 lakhs, the third at Rs. 1,07 lakhs and the others at sums varying from Rs. 68 lakhs to Rs. 12 lakhs. This is very much the same order as that of the previous year. Those exported to India were in order of importance, mineral oils (excluding paraffin-wax), rice (husked and unhusked) wood, raw cotton, metals, hides, grain and pulse (excluding rice) candles, lac and cutch of which the first was valued at Rs. 4,48 lakhs, the second at Rs. 3,47 lakhs, the third at Rs. 1,21 lakhs and the others at sums varying from Rs. 47 lakhs to Rs. 7 lakhs. The principal changes from the order of the previous year are the fall of rice to the second place and the rise of raw hides from the ninth to the sixth. The total value of the exports from Rangoon to foreign countries rose from Rs. 16,51 lakhs to Rs. 16,80 lakhs, but of those to India fell from Rs. 14,11 lakhs to Rs. 11,86 lakhs. The average of the former for the five years ending 1913-14 was Rs. 17,56 lakhs and the value of the latter for 1913-14 was Rs. 12,14 lakhs.

The share of Rangoon in the total foreign seaborne trade of the Province fell from 90 per cent. to 87 ; in the Indian trade rose from 82 to 90 ; and in the interportal trade fell from 42 to 41.

Rangoon trade: foreign imports.

115. There was a decrease in value of cotton goods imported into Rangoon from Rs. 5,76 lakhs to Rs. 5,60 lakhs, or about 3 per cent. Imports of twist and yarn from the United Kingdom fell in value from Rs. 14·27 lakhs to Rs. 9·35 lakhs, the lowest yet recorded ; those from India fell in quantity by 19 per cent., but rose in value by 24 ; those of cotton piece-goods from countries outside India fell in value from Rs. 3,08 lakhs to Rs. 2,55 lakhs, those from the United Kingdom, the chief source of supply, falling in value from Rs. 2,44 lakhs to Rs. 2,17 lakhs and

those from Japan showing a great decrease in quantity; those from India fell very slightly, less than a half per cent., in quantity, but rose in value from Rs. 1,18 lakhs to Rs. 1,59 lakhs. Of other cotton manufactures hosiery is the most important and comes chiefly from Japan. Imports of hosiery fell from Rs. 22·41 lakhs to Rs. 7·46 lakhs. The value of the imports of sewing thread (which comes chiefly from the United Kingdom) was Rs. 8·87 lakhs, much the same as in the previous year.

The value of the imports of silk fell from Rs. 44·26 lakhs to Rs. 39·41 lakhs. The raw silk imported fell in quantity by 65 per cent. and in value by 64 per cent. from Rs. 9·75 lakhs to Rs. 3·49 lakhs. The supply came chiefly from China, the Straits Settlements and Siam. Goods of silk mixed with other materials come chiefly from the United Kingdom; the imports fell about 80 per cent. in quantity and from Rs. 5·25 lakhs to Rs. 1·28 lakhs in value. Goods made entirely of silk however increased in quantity by 10 per cent. and from Rs. 29 lakhs to Rs. 34·43 lakhs in value and almost the whole supply as usual came from Japan.

The value of the imports of woollen goods, most of which come from the United Kingdom, fell from Rs. 14·64 lakhs to Rs. 11·29 lakhs; of apparel (excluding hosiery, etc.), from Rs. 10·59 lakhs to Rs. 9·29 lakhs, the United Kingdom and Japan being chiefly responsible for the decrease. Trade declined also in haberdashery and millinery of which the value of the imports fell from Rs. 23·08 lakhs to Rs. 7·82 lakhs—that of cotton towels alone fell from Rs. 11 lakhs to a little over half a lakh of rupees—and in boots and shoes of which the value of the imports fell from Rs. 11·70 lakhs to Rs. 5·68 lakhs—the United Kingdom is the chief source of supply.

Imports of metals and ores declined in value from Rs. 1,21 lakhs to Rs. 1,02 lakhs. Those of brass, copper, quicksilver, tin and zinc or spelter increased, but those of iron and steel, lead and other metals decreased. Japan increased her consignment of wrought-brass from 444 to 1,470 cwts.

The value of the imports of hardware fell from Rs. 34·74 lakhs to Rs. 27·51 lakhs, more than half the quantity coming from the United Kingdom, but the United States of America and Japan also contributing largely; of machinery and millwork from Rs. 37 lakhs to Rs. 31 lakhs; and of railway plant and rolling stock from Rs. 7·32 lakhs to Rs. 0·78 lakh. The United Kingdom sent fewer and the United States of America more sewing machines and the latter also sent materials for railway construction to the value of nearly half a lakh of rupees.

The value of the imports of provisions and oilman's stores (such as biscuits, cakes, butter, farinaceous foods, tinned milk, and canned and bottled provisions) was the lowest on record and fell from Rs. 47·45 lakhs to Rs. 26·98 lakhs. The share of the United Kingdom in the trade fell from Rs. 27·09 lakhs to Rs. 6·64 lakhs and that of America rose from Rs. 2·13 lakhs to Rs. 8·06 lakhs.

The imports of fish (excluding canned fish) fell again in volume and from Rs. 48·20 lakhs to Rs. 41·91 lakhs in value. The coasting trade, which is chiefly in dry unsalted fish from Madras, showed however a slight improvement in quantity.

Imports of salt declined from 76,473 tons to 24,352 in quantity and from Rs. 41·08 lakhs to Rs. 15·23 lakhs in value. All but 4 tons came from the United Kingdom, Spain and Aden and none from Egypt. At the beginning of the year the prices of English, Spanish, Aden and Port Said salt were Rs. 149, Rs. 144, Rs. 144 and Rs. 145 per 1,000 viss (3,600 lbs.) and at the end Rs. 159, Rs. 157, Rs. 154 and Rs. 152, respectively. The import into Rangoon of salt made in Burma decreased slightly from 5,392 to 5,302 tons. The price at the beginning of the year varied from Rs. 125 to Rs. 135 and at the end of April, 1917, stocks were exhausted. The price in the end of February, 1918, varied from Rs. 110 to Rs. 130, the new stock being neither so dry nor so white as the old.

The import of sugar increased by 54 per cent. in quantity and from Rs. 41·48 lakhs to Rs. 61·71 lakhs in value. Refined sugar, chiefly Java sugar from the Straits Settlements, contributed largely to the increase. No sugar was received from Hongkong and hardly any from Japan.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

The imports of liquors decreased by 32 per cent. in quantity and form Rs. 32·39 lakhs to Rs. 26·21 lakhs in value. Those of ale, beer and porter decreased in value from Rs. 11·03 lakhs to Rs. 8·13 lakhs; of spirits from Rs. 18·92 lakhs to Rs. 16·25 lakhs and of wines from Rs. 2·38 lakhs to Rs. 1·64 lakhs. The decrease was very general, rum being the only important item showing an increase. The United Kingdom sent 124,065 gallons of ale, beer and porter and Japan 155,708.

The imports of tobacco from countries outside India increased considerably in quantity and from Rs. 19·96 lakhs to Rs. 30 lakhs in value and those from India and coastal ports in quantity by one and a half million pounds and in value by Rs. six lakhs. There was an increase from Rs. 18·05 lakhs to Rs. 28·57 lakhs in the value of cigarettes imported from foreign countries. As usual the bulk came from the United Kingdom. There was a slight increase in the quantity sent by the Straits Settlements. Coasting imports of Indian and Burma tobacco rose in value from Rs. 32·77 lakhs to Rs. 36·84 lakhs, most of which came from Bengal. Imports of Indian cigars, which come almost entirely from Madras, fell, but those of cigarettes of Indian manufacture rose.

The imports of mineral oils fell 71 per cent. in quantity and from Rs. 14·62 lakhs to Rs. 10 41 lakhs in value owing chiefly to a decrease in fuel-oil received from Dutch Borneo. The United States of America however increased their contribution of kerosene from Rs. 1·65 lakhs to Rs. 5·54 lakhs in value.

Owing to the restriction placed on their importation the number of motor cars imported fell from 560 to 149, and their value from Rs. 17·05 lakhs to Rs. 4·67 lakhs. The number sent from the United Kingdom fell from 29 to 3; all the rest came from the United States of America and also all the motor cycles, the number of which fell from 155 to 18.

The value of the imports of arms and ammunitions and military stores fell from Rs. 3·78 lakhs to Rs. 2·63 lakhs. The number of fire-arms received fell from 955 to 922, of which the United States of America sent 553 and the United Kingdom 258. There was a large increase in the value of cement imported from Rs. 12·35 lakhs to Rs. 15·57 lakhs and most of it came from the United Kingdom. Imports of foreign coal fell from 9,660 to 7,095 tons, of which 2,643 tons came from the United Kingdom and 1,854 from New South Wales; those of Indian coal fell from 404,505 tons to 211,605. Earthenware and porcelain came chiefly from the United Kingdom and Japan and fell in value from Rs. 10·80 lakhs to Rs. 10·21 lakhs. There was a large decline in receipts of fruits and vegetables both from foreign countries and from India, especially in cocoanuts from the Straits Settlements.

Exports of rice.

116. The value of the exports of rice (husked and unhusked) from all the ports in the Province (excluding interportal trade) amounted to 54 per cent. of the value of the whole export trade and fell by 16 per cent. from Rs. 22,16·80 lakhs to Rs. 18,52·72 lakhs, of which Rs. 7·46 lakhs was the value of the unhusked rice. In 1913-14, 2,744,236 tons valued at Rs. 25,82·10 lakhs were exported; in 1916-17, 2,243,204 and in the year of report 2,058,631. Notwithstanding the increased scarcity of tonnage exports to foreign countries amounted to 1,513,359 tons, being more than in any of the previous years of the war; this was due to the demand for rice on the part of the British Government and to allocation of considerable tonnage to Rangoon in the last quarter of the year. In the middle of January, 1918, a Commissioner was appointed for the control of rice and large purchases were made by him on behalf of the Royal Commission for wheat supplies, London. Shipments to the United Kingdom amounted to 508,535 tons, the highest figure on record, the second highest being 316,429, that of the previous year. More was sent to the Straits Settlements than in any of the previous four years and Ceylon took somewhat less than in the previous year, but still much more than in the four years preceding it. Exports to France, Italy, Switzerland, Port Said (for allied countries), Mauritius, Japan and Australia increased, but those to Holland, Java, China and Cuba, showed a marked decrease. Owing to scarcity of tonnage the exports to India fell by 482,655 tons to about half the total

of the previous year: the need for wooden sailing ships was thus emphasized, as a regular service of them would have greatly relieved the situation.

The price of unhusked rice opened in April, 1917, at Rs. 116 for 100 baskets of 46 lbs. weight each, fell almost steadily to Rs. 80 in September, rose to Rs. 130 in the second week in December, but fell to Rs. 105 in the third. In the beginning of January 1918 the price for the old crop was Rs. 110 and for the new Rs. 93. The announcement of intended purchases on behalf of the Royal Commission and the fixation of a price for husked rice on the basis of Rs. 105 as the value of the best quality of unhusked rice raised the price of the new crop to Rs. 98 in the middle of January and it remained steady till nearly the end of the month when it began to fall reaching Rs. 88 in the middle of February when the supply of unhusked rice is perhaps most plentiful. Then extensive contracts for the purchase of rice for the Royal Commission were placed and trade with the Dutch East Indies and other parts improved and tonnage was expected and so the price rose in March and remained steady between Rs. 90 and Rs. 93 at the close of the year.

The price of white (husked) rice stood at about Rs. 282 per 100 baskets of 75 lbs. each at the beginning of the year of report, but began to decline steadily and considerable excitement was caused by the prohibition of exports to Calcutta. Early in July 1917 the price was Rs. 240, but on the removal of the prohibition it rose suddenly to Rs. 255 but again a decline set in and in the third week of September it reached Rs. 195, the lowest level for many years. In the middle of November it fell farther to Rs. 182·5, but rose to Rs. 265 early in December. There was subsequently another decline, but purchases on behalf of the Royal Commission caused a rise to Rs. 250 in January 1918. In February the price had fallen to Rs. 234 and although licenses for the exportation of 74,000 tons to the Dutch East Indies were granted it continued to fall owing to the general uncertainty and stood at Rs. 214 at the end of the year.

The exports of rice bran fell greatly from 143,888 tons valued at Rs. 37·05 lakhs to 22,115 tons valued at Rs. 2·82 lakhs. Shipments to the United Kingdom and the Straits Settlements decreased, the former remarkably, and prices ruled still lower, averaging Rs. 13 per ton, or Rs. 13 less than in the previous year and Rs. 18 less than in 1915-16.

Exports of other commodities.

117. The chief ports trading in teak are Rangoon and Moulmein and both showed a decline in exports, the former from 125,648 cubic tons (each of 50 cubic feet) valued at Rs. 1,61·86 lakhs to 105,143 cubic tons valued at Rs. 1,45·59 lakhs and the latter from 43,888 cubic tons valued at Rs. 50·33 lakhs to 24,301 cubic tons valued at Rs. 32·06 lakhs. Shipments to the United Kingdom fell from 20,073 to 4918 cubic tons, but those to the United States of America, Natal and Cape Colony largely increased. Almost all the teak exported from Moulmein went to South Africa. The exports of other woods too fell greatly from 19,915 cubic tons valued at Rs. 12·31 lakhs to 11,672 cubic tons valued at Rs. 8·48 lakhs.

The exports (foreign and coasting) of mineral oils fell from 156 million gallons valued at Rs. 5,16·69 lakhs to 138 million gallons valued at Rs. 4,74·22 lakhs. There were hardly any shipments of kerosene to foreign countries and those to India declined by 7 per cent. in both quantity and value. Bengal was, as usual, the best customer. The exports of benzene, benzol and petrol and other motor spirit fell by nearly six million gallons, or 23 per cent. Most (68 per cent.) went to the United Kingdom and the rest to Egypt. Exports of petrol to India, which had risen very greatly in the previous year, fell from six and a half million gallons to five. Exports of other oils (lubricating oils, earth oil, etc.) to foreign countries fell by 75 per cent. in quantity, but those of lubricating oils to India rose from three-quarters of a million gallons to two and a half millions.

Exports of paraffin-wax to foreign countries increased in value from Rs. 97·50 lakhs to Rs. 1,06·58 lakhs, but those to India decreased in value from Rs. 4·80 lakhs to Rs. 4·09 lakhs. Shipments to the United Kingdom, the United States of America and Cape Colony decreased, but those to Australia more than doubled, owing perhaps to the increased demand for Australian tallow, and those to Japan and Egypt increased.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

Exports of candles to foreign countries increased in value from Rs. 17·73 lakhs to Rs. 24·17 lakhs, or 36 per cent., and constituted a record, but those to India decreased in value from Rs. 14·04 lakhs to Rs. 13·24 lakhs. The bulk went to Egypt which took a quantity valued at Rs. 9·25 lakhs, or about seven times as much as in the previous year.

Exports of hides and skins to foreign countries declined by nearly a half in quantity and in value from Rs. 59·34 lakhs to Rs. 33·24 lakhs, or 44 per cent. Those of buffalo hides, chiefly to the United Kingdom, increased by about a half, but those of cow hides decreased enormously. Exports of the latter to the United Kingdom and the United States of America fell, but those to Italy rose. Exports to India increased again in value from Rs. 5·09 lakhs to Rs. 25·72 lakhs and were nearly all made to Madras.

The good prices of the previous year stimulated the growth of cotton in the Province and the yield increased. Exports to foreign countries of the raw product rose 16 per cent. in quantity and from Rs. 52·05 lakhs to Rs. 68·22 lakhs in value. Shipments to the United Kingdom declined in quantity by 22 per cent., but those to Japan rose enormously from 656 cwts. worth Rs. 0·34 lakh to 42,036 worth Rs. 23·05 lakhs and those to India were higher than in either of the three preceding years and went chiefly to Bengal.

As in the previous year no cotton seed was exported from the Province, but 74,840 gallons of cotton-seed oil, nearly as much as in the previous year, were exported to foreign countries and of its cake 4,000 cwts., or about a sixteenth the amount of the previous year, was exported, all to the United Kingdom. No shipments of the oil or cake were made to India.

The yield of groundnuts was estimated at 8 per cent. less than that of the previous year and exports to foreign countries fell by 52 per cent. in quantity and by 43 per cent. to Rs. 1·27 lakhs in value. Shipments of the oil and of the oil cake were made chiefly to the United Kingdom and the former fell about 40 per cent. in quantity and from Rs. 8·49 lakhs to Rs. 5·46 lakhs in value and the latter from Rs. 14·22 lakhs to Rs. 0·90 lakh in value.

Exports of beans to foreign countries rose slightly from 67,629 tons valued at Rs. 1,13·71 lakhs to 72,714 tons valued at Rs. 1,46·67 lakhs. The United Kingdom took 82 per cent.; shipments to Japan, the second best customer, rose considerably; and those to India, which went chiefly to Madras, rose in value from Rs. 4·89 lakhs to Rs. 5·58 lakhs.

There was an increase of 14 per cent. in the amount of rubber exported to foreign countries, but a decrease in value from Rs. 43·93 lakhs to Rs. 42·60 lakhs. The United Kingdom took 86 per cent. of the quantity exported and considerably more than in the previous year, but shipments to the Straits Settlements, the United States of America and Ceylon decreased.

Exports of cutch to foreign countries fell by 30 per cent. in quantity and in value from Rs. 10·12 lakhs to Rs. 6·44 lakhs and those to India from Rs. 7·68 lakhs to Rs. 6·93 lakhs. The United Kingdom took most, but shipments to the United States of America were much greater while those to Hongkong and Ceylon were much smaller than in the previous year and none were made to France.

Exports of lac to foreign countries consisted of exports of shellac to the United Kingdom and rose from 74 cwts. valued at Rs. 0·04 lakh to 1912 cwts. valued at Rs. 2·60 lakhs. Shipments to India fell from 24,911 cwts. to 15,825 cwts. but the value rose from Rs. 8·94 lakhs to Rs. 9·40 lakhs.

Exports of pig-lead to foreign countries rose from 10,351 tons to 10,569 tons, but fell in value from Rs. 53·89 lakhs to Rs. 50·92 lakhs. Shipments to the United Kingdom and Ceylon increased considerably, but those to the Pacific ports of Russia and to Hongkong decreased.

Exports in zinc ore show extraordinary fluctuations in the past five years. Over 3,000 tons valued at Rs. 2·36 lakhs were exported in 1916-17 but only 2 tons valued at Rs. 150 during the year of report.

Nearly all the jadestone shipped from Burma went to Hongkong. The exports fell from 5,626 cwts. to 3,108 cwts., but the value rose from Rs. 11·31 lakhs to Rs. 12 lakhs owing to an increase of 93 per cent. in price.

Distribution of Rangoon trade.

118. In 1913-14, the last complete year before the war, the United Kingdom's share in the foreign trade of Rangoon was 36·51 per cent. of the value of the whole. The figures for 1915-16 and subsequent years are 47·43, 44·40 and 44·30. Her share in the import trade fell from 55·94 to 54·50 per cent. and in the export trade rose from 36·20 to 38·37 in the year of report. The corresponding figures for the British Empire including the United Kingdom are 66·99 and 68·03 for the import and 72·93 and 75·96 for the export and 70·46 and 73·05 for the total trade, respectively, and show a slight advance. There were very large increases in exports to Egypt and Australasia.

European countries decreased their share in the import trade from 7·59 to 4·72 per cent., in the export from 5·99 to 5·57 and in the total trade from 6·65 to 5·26. Exports to Russia and both exports to and imports from Holland decreased and exports to Greece increased remarkably.

Asia's share in the import trade rose from 14·93 to 15·96 per cent., in the export from 13·95 to 14·07 and in the total trade from 14·36 to 14·76. The share of Java, China and Dutch Borneo decreased considerably, but that of Japan largely increased.

Africa continued to have an insignificant share in the trade of Rangoon. It consisted as in the previous year almost entirely of exports from Rangoon to Portuguese East Africa and rose from 0·20 to 0 27 per cent.

America's share in the import trade rose from 10·49 to 11·29 per cent., but in the export fell from 6·79 to 3·98, and in the whole trade from 8·33 to 6·66. The share of the United States of America showed a slight decrease and those of Cuba, the Argentine, Chili, etc., large ones.

The trade of Rangoon with Bengal fell from Rs. 14,26 lakhs to Rs. 13,46 lakhs; with Bombay from Rs. 4,77 lakhs to Rs. 3,89 lakhs; and with Madras from Rs. 3,65 lakhs to Rs. 3,32 lakhs.

Subordinate ports.

119. Rangoon claimed 86·82 per cent. of the foreign trade, 90·35 of the Indian, 40·57 of the Provincial and 85·7 of the total seaborne trade of the Province in the year of report. The figures for the previous year were 89·97, 82·47, 42·25 and 84·18. Of the foreign trade, Bassein took 6·59 per cent., Tavoy 2·95, Moulmein 2·30, Mergui 0·92 and Akyab 0·31, and all but the last show increases; of the Indian trade, Bassein took 0·37 per cent., Moulmein 3·37 and Akyab 5·90, and all show decreases; of the Provincial trade, Bassein took 0·90 per cent., Tavoy 22·05, Moulmein 7·18, Mergui 16·89 and Akyab 11·49 and show little difference from the previous year. Of the total trade, Bassein took 3·71, Tavoy 2·80, Moulmein 3·01, Mergui 1·43 and Akyab 3·22. Akyab and Moulmein show decreases. The other three ports, Victoria Point, Kyaukpyu and Sandoway, have an insignificant trade, nearly all of which is provincial.

Intra-provincial seaborne trade.

120. The value of the intra-provincial seaborne trade of Burma declined slightly from Rs. 3,18·36 lakhs to Rs. 3,15·86 lakhs; that of imports rose from Rs. 1,73·40 lakhs to Rs. 1,76·48 lakhs; and that of exports fell from Rs. 1,44·96 lakhs to Rs. 1,39·38 lakhs. Most of the trade as in previous years was carried on between Rangoon and the ports in the Tenasserim Division. Rangoon and Tavoy increased their imports, but diminished their exports; Moulmein, Mergui and Bassein increased both their imports and exports; and Akyab diminished both.

Transfrontier trade; total trade.

121. The transfrontier trade of Burma is, strictly speaking, that between Burma and adjacent foreign countries such as China and Siam. It is recorded with fair accuracy in the North and South, but owing to the difficulty of establishing recording stations in such remote places no attempt is made to record the trade with Western China, Tongking, and Northern Siam which crosses the frontier between the latitudes of 19 and 23 degrees, and so to this extent the statistics of transfrontier trade proper are incomplete. No changes in taxes or tolls were made during the year.

The value of imports from foreign countries into Burma fell from Rs. 1,37·40 lakhs to Rs. 1,34 lakhs and that of exports from Burma to foreign countries rose from Rs. 83 lakhs to Rs. 1,19 lakhs. Imports from Western China fell from

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Rs. 1,02·5 lakhs to Rs. 96·39 lakhs, but exports rose from 55 lakhs to Rs. 91 lakhs; imports from Northern Siam increased from Rs. 24·57 lakhs to Rs. 25·15 lakhs and exports from Rs. 22 lakhs to Rs. 23·25 lakhs; imports from Southern Siam rose from Rs. 10·34 lakhs to Rs. 12·49 lakhs and exports fell from Rs. 5.87 lakhs to Rs. 4·39 lakhs. The total value of the trade shows an increase from Rs. 2,20·5 lakhs to Rs. 2,53 lakhs but this increase is more apparent than real owing to the establishment of two new recording stations at Namhkam and Kangmong near the Kunlon ferry on the Salween River in the Northern Shan States through which it is estimated that about 60 per cent. of the total trade between Western China and the Northern Shan States passes, and the rise in prices due to the war. The chief imports were cattle, elephants, hides, lac, brass and copper, silk (chiefly raw) teak (floated down the Salween River) and silver; the chief exports were wearing apparel, raw cotton, manufactured cotton (including twist and yarn and piece-goods) petroleum, fish and silver.

China.

122. Imports to the value of Rs. 20·34 lakhs and exports to the value of Rs. 8 lakhs were recorded at the new stations mentioned above. The value of the rest of the trade recorded between Burma and Western China, that which passes through Bhamo and Myitkyina, rose by a lakh and a half of rupees to to Rs. 1,59·20 lakhs and constituted a record. Imports fell by Rs. 26 5 lakhs in value, but exports rose by Rs. 28 lakhs. Chinese silver was imported in less quantities by this route, as much of it was diverted to the Kengtung route. The trade in orpiment decreased owing to difficulties of freight, but exports of silver increased by Rs. 13·5 lakhs, as the exporters of raw silk from China to Burma demanded payment in cash. The figures show the remarkable rise in prices, not only of imported raw silk, but other commodities such as exported twist and yarn (Indian) and piece-goods. The principal imports were animals, hides, lac, brass and copper, raw silk and silver; the principal exports were raw cotton, cotton goods, petroleum, fish, jade and silver.

Siam.

123. Trade with Northern Siam recovered slightly from the depression of the previous year. Both imports and exports showed increases in value. Much fewer cattle were imported into Burma. Chinese cigarettes (brought by the Papun route) and Japanese articles such as cotton rugs, towels and articles of clothing, though inferior in quality to those of European and Indian manufacture, are becoming increasingly popular and Japanese matches have ousted all others in the bazaars near the frontier. The principal imports were cattle, elephants, teak and silver; the principal exports were wearing apparel, manufactured cotton goods and silver.

Trade with Southern Siam slightly increased. Imports of cattle and raw silk rose in value, but imports of silk piece-goods and exports of cotton twist and yarn and cotton piece-goods fell. The principal imports were cattle, elephants, raw silk, silk piece-goods and silver; the principal exports were wearing apparel, manufactured cotton-goods, iron and silver.

Trade with unadministered Kachin country.

124. Probably on account of the development of the Northern frontier of Burma the value of its trade with the unadministered Kachin country rose from Rs. 13·56 lakhs to Rs. 16·72 lakhs. Both imports and exports increased, the former from Rs. 5·54 lakhs to Rs. 7·43 lakhs, the latter from Rs. 8·02 lakhs to Rs. 9·29 lakhs. The principal imports from this region were animals, raw fibres (excluding jute), hides, fish, green tea, gold and silver; the principal exports were cattle, wearing apparel, manufactured cotton-goods, brass and copper, salt, sugar, tobacco and silver.

Trade with the Shan States and Karenni.

125. Imports from the Northern Shan States rose from Rs. 2,13 lakhs to Rs. 4,11 lakhs in value and exports from Rs. 2,98 lakhs to Rs. 3,94 lakhs. The value of lead imported increased from Rs. 54 lakhs to Rs. 81 lakhs and that of other metals, chiefly zinc ores, from Rs. 55·5 lakhs to Rs. 1,73 lakhs, owing chiefly to the development of the Bawdwin mines; that of brass and copper from Rs. 2 lakhs to Rs. 6 lakhs. There were large increases in exports of limestone, coal and coke, due to the demands of the Mines, and of European piece-

goods. Exports of twist and yarn increased slightly in quantity and very greatly in value, but exports of ironwork fell owing to the difficulty of obtaining supplies. The principal imports were animals (especially horses ponies and mules), raw cotton, oranges potatoes husked rice, gums and resins, hides, lac, metals, paints, tea, railway materials, tilseed, spices, cigar-wrappers of bark, teak and silver. The principal exports were wearing apparel, lime and limestone, coal and coke, manufactured cotton goods, drugs wheat, liquors, iron and other metals, oil, provisions (especially fish), railway materials, salt, betelnuts, tobacco, various manufactured goods and silver.

The growing prosperity of the Southern Shan States is shown by the increase of their exports into Burma from Rs. 72·17 lakhs to Rs. 76·83 lakhs and of their imports from Burma from Rs. 91·35 lakhs to Rs. 1,15·91 lakhs. The exports of European cotton twist and yarn to these States increased both in bulk and value and though those of European cotton piece-goods decreased in bulk they increased in value. The principal imports into Burma were animals (chiefly horses ponies, mules, cattle and elephants), garlic, oranges, potatoes, wheat, lac, wolfram, paints, cigar wrappers of bark, teak and silver; the principal exports were wearing apparel, manufactured cotton goods, liquors, iron, oil, provisions (especially fish and *ghee*), railway materials, salt, betelnuts, tobacco, various manufactured goods and silver.

The value of the imports into Burma from Karenni fell from Rs. 25·87 lakhs to Rs. 22·50 lakhs and that of the exports from Rs. 12·91 lakhs to Rs. 8·69 lakhs. The chief imports, namely those of cattle, elephants and teak decreased. The value of the wolfram exported (from the Mawchi Mines) largely increased, but that of silver showed a considerable decline. The principal imports into Burma were animals (chiefly horses, ponies, mules, cattle and elephants), wolfram, teak and silver and the principal exports from Burma were wearing apparel, manufactured cotton goods, iron, fish, betelnuts and silver.

It must be noted, however, that the figures showing the trade between Burma and the Shan States and Karenni are swelled to a certain extent by the through trade between Burma and Western China, Tongking and Siam, some of which may have already been shown in the figures for the transfrontier trade of Burma.

Public Works.

Administrative and General.

126. The few administrative changes in the Public Works Department which took place are described in paragraph 2. The total expenditure in the year rose from Rs. 1,25·52 lakhs to Rs. 1,31·23 lakhs. The Communications Sub-Committee of the Standing Advisory Committee, for the improvement of communications in Burma held four meetings during the year and examined proposals for roads, etc., in the Meiktila, Magwe, Sagaing and Irrawaddy Civil Divisions and considered a draft bill to provide for the control of drainage channels in Burma. No new roads were constructed nor any specially large building except the Municipal Hospital at Toungoo, but three large permanent bridges were built.

(*i*) *Roads and Buildings.*

Communications.

127. The total lengths of metalled and unmetalled roads maintained by Government outside Municipal and notified areas rose from 1,916 miles to 1,920 miles and fell from 10,432 miles to 10,339 miles, respectively, and the lengths maintained by the department remained at 1,912 miles and fell from 8,706 miles to 8,518 miles, respectively. The total expenditure on communications rose from Rs. 51·22 lakhs, of which Rs. 19·80 lakhs were spent on original works and the rest on repairs, to Rs. 55·92 lakhs, of which Rs. 16·77 lakhs were spent on original works and the rest on repairs.

The work of replacing wooden by permanent bridges on the Rangoon-Prome, the Thabeitkyin-Mogôk and other roads and on the Chinese Frontier Road in the Bhamo District continued and good progress was made on a steel truss bridge of two spans each of 100 feet on the Myedè Road in the Prome District. Special attention was paid to the improvement of communications in the mining districts

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of Tavoy and Mergui and in the former the steel girder bridge with a central span of 100 feet and two each of 25 feet on the Pagave-Hermingyi Road was finished. Much work was done in the Northern Shan States; the suspension bridge of 400 feet span over the Namtu at Tatingang was finished and opened to mule traffic and will be opened to cart traffic when the approach road has been made; a suspension bridge of 200 feet over the Nampat stream was begun and one of 120 feet over the Namhka stream was in progress. In the Myitkyina District many bridges were built, the road from Myitkyina to Putao was widened and improved and several inspection bungalows were erected.

Buildings: Imperial and Provincial.

128. The amount spent on Civil Buildings rose from Rs. 23·63 lakhs, of which Rs. 15·02 lakhs were spent on original works and the rest on repairs, to Rs. 22·14 lakhs, of which Rs. 22·06 lakhs were spent on original works and the rest on repairs. Among the many works completed were the Post Office at Akyab, the Central Telegraph Office at Rangoon, the District Court-house at Myingyan, Anglo-Vernacular Government Schools at Mergui and Myaungmya, wards for 100 under-trial prisoners at Prome Jail, a camp for 500 prisoners at Maymyo, permanent quarters for the Civil Police at several places in Lower Burma and at Maymyo, the removal and re-erection of police buildings at Myothit in the Magwe District, a defensible lock-up and quarters for Military Police at Kungyangôn in the Hanthawaddy District, and the reclamation of the yard of the Marine Workshop, Rangoon. Good progess was made on the residential and other buildings rendered necessary by the removal of the head-quarters of the Upper Chindwin District from Kindat to Mawlaik and the creation of the new district of Putao. Extensive improvements were made in the Jail at Insein and the scheme of building permanent quarters for the civil police throughout the Province was carried on. At Tavoy the European ward of six beds in the civil hospital was nearly completed.

Miscellaneous public improvements and sanitary works.

129. The expenditure on Miscellaneous Public Improvements during the year fell from Rs. 19·98 lakhs, of which Rs. 15·08 lakhs were spent on new works and the rest on repairs, to Rs. 13·97 lakhs, of which Rs. 9·06 lakhs were spent on new works and the rest on repairs. The foundations of the dam at Maymyo were completed and the earthwork was begun. The town of Sagaing was protected from floods by an embankment and various improvements were carried out in the towns of Hsipaw and Namtu in the Northern Shan States, Kalaw in the Southern Shan States, Mawlaik in the Upper Chindwin District, Tantabin in the Insein District and Penwegôn in the Pegu District.

The reclamation of the civil station and town of Pyapôn by the dredger "Frederic Fryer" was continued and the laying out of some railway towns in the Bassein District was completed. Work on landing stages and jetties at Pauktaw and Ponnagyun in the Akyab District, Kamyawkwin in the Tavoy District and Andrew Bay in the Sandoway District continued. Progress was made in additions and improvements to various bazaars and that at Kalaw was completed The schemes for the water supply of Kalaw, Minbu and Ma-ubin were carried out and progress was made in those for Maymyo, Mandalay and Pegu. Wells were sunk, but not always with successful results, at Yamèthin and Pyawbwe in the Yamèthin District, Aungban in the Southern Shan States, Taungdwingyi in the Magwe District, Zigôn in the Tharrawaddy District and Henzada and Pakôkku. Drainage works were carried out in and Pwinbyu in the Minbu District, Akyab and Toungoo and surveys for such works in Pyapôn and Kyaiklat in the Pyapôn District. The provision of aerobic filter latrines for public buildings progressed.

Military works.

130. The expenditure on Military works rose from Rs. 4 lakhs, of which Rs. 1·14 lakhs was spent on original works and the rest on repairs, to Rs. 4·13 lakhs, of which Rs. 1·07 lakhs was spent on original works and the rest on repairs. Temporary lines for the 62nd Company of the Burma Sappers and Miners at Mandalay, various buildings for the 2/10th Gurkha Rifles at Maymyo and quarters in Rangoon for Sergeant Instructors of the Indian Defence Force were completed. The rifle range at Thamaing was improved. The camps for Turkish prisoners of war at Shwebo and Thayetmyo were enlarged and huts were

provided at Aungban and other places in the Southern Shan States for those of them who were employed on the extension of the railway from Aungban to Heho.

(*ii*) *Railways and Tramways.*

Railways: construction and surveys.

131. The railways of the Province are worked by the Burma Railways Company, Limited, and consist of the main line from Rangoon to Myitkyinà; the Pegu-Moulmein line; the Henzada-Kyangin line; and the Southern Shan States line, with their branches. No addition was made to the length of open line during the year and it remained at 1,5 8 46 miles. Eighteen miles of the Southern Shan States line were under construction during the year, but were not opened to traffic

The report and estimates for the proposed coast line to connect Burma with India were again under consideration In August 1917, the Railway Board sanctioned a detailed survey by the Assam-Bengal Railway Company, Limited, for a line on the metre gauge from Chittagong to Maungdaw in the Akyab District; and in November of the same year an exploration survey of the Patkai Range by the same company, with a view to ascertaining the best passage through the range for the proposed Hukong Valley line; on the survey being carried out, the Sympana saddle was recommended.

In April 1917, the Secretary of State sanctioned the completion estimate of Rs. 1,50'77 lakhs of the cost of constructing the Thazi-Aungban section of the Southern Shan States line. Steps were taken to secure the employment of Turkish prisoners of war on the earth-work of the Aungban-Heho extension. The report and estimate for the detailed survey of the Kyangin-Petye line was under consideration and the final choice between the alignment of the survey of 1909 and that along the berm of the road surveyed in 1917 was not made.

Negotiations proceeded between the Railway Board and the Arakan Light Railway Company, Limited, regarding the completion and working of the tramway between Buthidaung and Maungdaw in the Akyab District.

The application of the Tenasserim Railway and Trading Syndicate for concessions for railway construction in the Tenasserim Division was rejected. The Local Government was asked to support a proposal to construct a light railway from Moulmein to Tavoy at the end of the war and further details of the project have been called for.

Accidents and interruptions.

132. The chief danger which threatens the railways in Burma is damage by floods during the rains. There were fourteen accidents of this nature during the year 1917-18. On the 3rd of June 100 feet of embankment was washed away to a depth of 5 feet between Kyehmon and Mônywa, but repairs were effected the same day; on the 17th breaches between Mohnyin and Taungni stations rendered the line unsafe, but communication was restored the next day; on the 2nd of August and again on the 10th similar accidents took place between Hopin and Pinbaw stations. On the night of the 10th of August the River Swa washed away bridge No. 305 and transhipment had to be resorted to. About midnight on the 12th, when a ballast train was being pushed towards the breach, seven wagons fell into it. One of the staff, a relief driver, who was asleep in the train, was drowned and the guard was slightly injured. Communication was not restored till the 22nd. On the night of the 14th August heavy rain breached the line between Zibingyi and Ani-Sakan stations. The bridge at mile 412—17L was swept away and in consequence the ballast was scoured out for a distance of about 400 feet and the line was slewed for a short distance. Transhipment was resorted to and the line rectified and communication restored on the 17th. On the 18th heavy rain caused a subsidence near Ela station and some delay in traffic was the result and on the 20th a small breach again occurred between Kyehmon and Mônywa stations. On the 4th of October the Sagaing-Alôn section was breached and repaired the next day and on the 9th part of the line between Legyi and Nyaungbinwun stations was washed away and through communication interrupted till the 3rd of November and on the 13th October and again on the 20th

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between Chaungu and Natvekan traffic was delaved for a day owing to the same cause. On the 2nd of November the cutting near Payangazu station slipped and after it had been repaired two boulders fell on to a passing train and caused slight damage, and on the 17th the line between Kyaukme and Bawgyo stations was extensively breached and through communication was not restored till the 20th.

There were other accidents during the year. On the 4th of May a collision occurred between two goods trains in Mahlwagon yard owing to faulty shunting and damage was done to the extent of Rs. 4,000. On the 2nd of July failure of the spikes to hold the rails to gauge caused the derailment of an engine and several wagons and coaches near Hsipaw station, but no passengers were hurt. The heavy rain of the previous night might have aggravated conditions, but the sleepers were bad. On the 6th of August a large tree which had fallen on the line near Kin station caused an engine and tender to capsize. No passengers were hurt, but the fireman was slightly burnt. On the 8th the sinking of the embankment between Elb and Pyawin stations caused the derailment of two goods wagons, and on the 21st at Belin station owing to the points not being locked or manned, an engine and six goods wagons were derailed and serious damage caused to rolling-stock, but no persons were hurt. On the 28th of September at Toungoo a shunting engine with a wagon and a brake-van collided with part of a ballast train. Four vehicles were derailed and a pointsman was thrown off the brake-van and so seriously injured that he subsequently died. On the 31st of October at Mahlaing station a derailment occurred owing to the wrong setting of points, but no passengers were injured. On the 4th of November at Hmawbi station an engine was derailed by a stone which had been placed on the line and on the 21st near Kvatti station a slack coupling caused a parting between an engine and the leading vehicle and subsequent derailment of two wagons, but no passengers were hurt on either occasion. On the 29th of January a buffalo was run over and derailed three vehicles of a mixed train between Hopin and Pinhaw stations, but no passengers were hurt. The line was unfenced, but the engine was provided with a cattle fender of the longitudinal bar pattern. On the 14th of March a wagon carrying heavy machinery was derailed near the Gokteik Gorge owing to faulty loading. On the 22rd at Yamèthin station, owing to the points not being properly set, a goods train ran into a dead end, the engine and six wagons capsized and damage was caused to the extent of Rs. 6,000; and on the same day between Chaungu and Natyekan stations a truck laden with mules was found to be on fire. One mule was killed and another badly burnt. Wood was being used as fuel.

Traffic and finance.

133. The number of passengers carried on the whole system of railway during the year fell from 29,030,278 to 26,959,871; the gross earnings rose from Rs. 2,47·28 lakhs to Rs. 2,47·73 lakhs and the working expenses from Rs. 1,28·68 lakhs to Rs. 1,33·26 lakhs and so the nett earnings fell from Rs. 1,18·6 lakhs to Rs. 1,14·5 lakhs.

The gross earnings of the main line fell from Rs. 2,23·20 lakhs to Rs. 2,22·75 lakhs and the working expenses rose from Rs. 1,14·90 lakhs to Rs. 1,17·89 lakhs so the nett earnings fell from Rs. 1,08·30 lakhs to Rs. 1,04·85 lakhs. Despite capital expenditure during the year amounting to Rs. 6·29 lakhs the capital outlay since the beginning of operations fell from Rs. 17,91·24 lakhs to Rs. 17,84·95 lakhs consequent on large sales of rolling-stock to the military department for use overseas. The total number of miles run by trains fell from 4,804,258 to 4,646,767 and the average earnings per mile per week from Rs. 319·89 to Rs. 319·23. The average earnings per train mile rose from Rs. 4·65 to Rs. 4·79 and the average expenses from Rs. 2·39 to Rs. 2·53. The percentage of expenses to gross earnings rose from 51·48 to 52·93 and that of nett receipts to capital outlay fell from 5·96 to 5·75. The mileage worked remained the same as in the previous year, 1,341·85. Among the chief items of expenditure were the construction of carriage and wagon workshops and quarters for the staff at Myitnge; additions and improvements to coaching stock; construction of three new crossing stations on the Lashio branch; embanking the Yenwè river in the Pegu District and raising the bridge over it; extension of the simplex interlocking system; replacing of

timber trestle bridges by steel girders between Mogaung and Myitkyina; and remodelling the watering arrangements at Rangoon station.

The capital outlay on the Pegu-Moulmein railway since the beginning of operations was reduced from Rs. 1,55·19 lakhs to Rs. 1,54·11 lakhs; the train mileage rose from 381,445 to 478,387; the gross earnings rose from Rs. 17·56 lakhs to Rs. 17·93 lakhs; the gross working expenses rose from Rs. 8·92 lakhs to Rs. 9·40 lakhs; and so the nett earnings fell from Rs. 8·6 lakhs to Rs. 8·5 lakhs. The ratio of expenses to gross earnings rose from 50·81 per cent. to 52·43 and that of nett receipts to capital outlay fell from 5·57 per cent. to 5·53. The mean mileage worked was 121·27.

On the Henzada-Kyangin railway the capital outlay from the beginning of operations was reduced from Rs. 64·95 lakhs to Rs. 64·89 lakhs; the train mileage fell from 104,170 to 72,914; gross earnings fell from Rs. 3·13 lakhs to Rs. 2·06 lakhs; the working expenses fell from Rs. 2·03 lakhs to Rs. 1·79 lakhs; and so the nett earnings fell from Rs. 1·1 lakhs to Rs. 0·86 lakh. The ratio of expenses to gross earnings rose from 64·86 per cent. to 67·47 and that of nett receipts to capital outlay fell from 1·69 per cent. to 1·33. The mean mileage worked was 65·66.

On the first section (Thazi to Aungban, a distance of 70 miles) of the Southern Shan States railway the capital outlay during the year amounted to Rs. 11,764 and that from the beginning of operations was therefore raised from Rs. 1,53·51 lakhs to Rs. 1,53·63 lakhs. The train mileage rose from 86,432 to 104,718; gross earnings rose from Rs. 3·38 lakhs to Rs. 4·40 lakhs and working expenses from Rs. 2·83 lakhs to Rs. 4·17 lakhs and so the nett earnings fell from Rs. 0·55 lakh to Rs. 0·23 lakh. The ratio of expenses to gross earnings rose from 83·65 per cent. to 94·78 and that of nett receipts to capital outlay fell from 0·36 per cent. to 0·15. The mean mileage worked was 69·68. Part of the proposed extension was resurveyed during the year and an estimate of Rs. 16·28 lakhs for its construction from Aungban to Heho was submitted to the Railway Board. The earthwork of this section was begun and the expenditure incurred on it during the year amounted to Rs. 70,944.

The capital outlay on the East Daga railway (in the Bassein and Henzada Districts) during the year was only Rs. 70 and the total since the beginning of operations was Rs. 25,708. The sanctioned estimate for construction is Rs. 40·05 lakhs. Further operations on this project have been suspended.

Surveys for railways from Pyinmana to Magwe and from Kyangin to Petyè (in the Henzada District) were in progress during the year; Rs. 8,802 was spent on the former out of a sanctioned estimate of Rs. 20,995 and the latter was completed at a cost of Rs. 3,639.

Tramways.

134. The number of passengers carried by the tramways in Rangoon during the year rose remarkably, chiefly owing to a decrease in fares, from 10,860,629 to 17,639,310 and the running mileage increased from 1,435,286 to 1,554,842. The receipts rose from Rs. 8,52,956 to Rs. 9,34,837.

In Mandalay the Burma Electric Tramways and Lighting Company carried 2,601,281 passengers 455,201 miles over their system 6·5 miles in length without fatal accidents. The corresponding figures for the previous year were 2,676,900 and 508,660. The traffic receipts fell also from Rs. 2,14,970 to Rs. 2,06,019.

The light railway from Mandalay to Madaya, about 18 miles in length, was opened on the 22nd of May 1917. Part of the line is laid on an irrigation embankment which proved rather narrow for both railway and road traffic. A section of the railway had been opened for traffic as early as July 1912. Inspection showed the permanent way to be in a somewhat unsatisfactory state.

(*iii*) *Canals.*

Navigation canals.

135. In the Pegu-Sittang Canal the repairs to the Abya sluice proved successful, and preparations were made for renewing the gates of the lock at Tawa. The water hyacinth hindered traffic for ten days, but did not succeed in stopping it. A bamboo boom was erected to keep this weed from being carried

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down the canal from the Thanatpin lake. The suction dredger was found to be unsatisfactory for dealing with the soil of the canal and it was transferred to the Embankment Division, but owing to the war a new dredger could not be obtained. The cost of maintenance fell from Rs. 1·82 lakhs to Rs. 1·00 lakh, and the revenue from all sources rose from Rs. 1·73 lakhs to Rs. 1·78 lakhs, of which Rs. 1·54 lakhs were receipts from navigation. Of the embankments subsidiary to the canal the Mohingyi extension was nearly finished, the Myitkyo Loop extension was completed and the others were improved and maintained, but the Pagaing embankment continued to give ground for anxiety. Work on the training of the Yenwè river, which is much used for floating logs, in the Pegu District continued.

The Twante Canal was completed in March 1917. The nett revenue rose from Rs. 0·80 lakh to Rs. 2·99 lakhs. An embankment along the canal boundary on the north side of the New Cut was built at a cost of Rs. 9,625 to prevent tidal water flooding land in the vicinity. The dredger "Lees" with its terminal pontoons was taken over by the Military Department and the steam-launches "Cynthia" and "Builder" by the Local Government. Laterite pitching in the New Chord Cut was begun and a search-light was erected at a cost of Rs. 3,455 at Letpangôn Toll Station.

The Shwetachaung Canal is used for navigation (as well as irrigation) between Mandalay and Madaya. A permanent bridge was begun over it at the latter place. The Kyaikto-Sittang and Kyaikto-Bilin Canals were abandoned on account of encroachments of the sea.

Irrigation.

Major irrigation works.

136. There are in the Province four irrigation works classed as "Major," the Mandalay, Shwebo, Môn and Ye-u canal systems. The total capital outlay on these at the end of the financial year rose from Rs 2,10·31 lakhs to Rs. 2,15·93 lakhs and the amount expended during the year from Rs. 5·42 lakhs to Rs. 5·62 lakhs. The area irrigated or benefited fell from 282,447 acres to 274,587; revenue receipts fell from Rs. 15·11 lakhs to Rs. 11·44 lakhs; working expenses from Rs. 6·17 lakhs to Rs. 5·02 lakhs; the nett revenue from Rs. 8·94 lakhs to Rs. 6·42 lakhs; and the percentage of nett revenue on capital outlay from 4·2 to 3 of which delay in payment of canal dues was the chief cause.

In the year of report the reconstruction of the head-works of the Mandalay Canal was finished and a new bridge was begun; in the Shwebo Canal much progress in works was made; in the Môn Canals several important repairs were carried out; and in the Ye-u Canal the earthwork was very nearly completed and the outlay rose from Rs. 3·76 lakhs to Rs. 4·17 lakhs.

The area irrigated by the Mandalay Canal fell from 63,084 acres, the largest on record, to 61,005 acres, owing chiefly to a flood. The fall in the price of rice and the trial of white beans (*pèbyugale*) on unirrigated lands led to fallowing and new areas irrigable from the Kinbat Distributary were not brought under cultivation. The gross revenue fell from Rs. 4·05 lakhs to Rs. 2·33 lakhs, the working expenses from Rs. 1·70 lakhs to Rs. 0·77 lakh and the nett revenue from Rs. 2·35 lakhs to Rs. 1·56 lakhs; Rs 1·40 lakhs of revenue still remained, however, to be collected at the close of the year. The assessment to water-rate was Rs. 3·11 lakhs and to land revenue Rs. 0·57 lakh. The return on the capital outlay fell from 4·12 to 2·73 per cent.

The area irrigated by the Shwebo Canal fell from 161,274 acres to 154,981. The decrease was due to the low price of rice which discouraged extension of cultivation and the abandonment of low-lying areas on account of water-logging and poverty of soil. The gross revenue fell from Rs. 7·80 lakhs to Rs. 6·84 lakhs the working expenses rose from Rs. 2·74 lakhs to Rs. 2·77 lakhs and the nett revenue fell from Rs. 5·06 lakhs to Rs. 4·07 lakhs. The assessment to water-rate was Rs. 6·56 lakhs and to land revenue Rs. 1·41 lakhs and they were slightly greater than in the previous year owing to the introduction of new rates following reclassification of the land; Rs. 1·35 lakhs remained to be collected at the close of the year. The revenue was unfavourably affected by the increase in area under

wheat (the rate of assessment of which is less than that of rice) owing to a rise in price. The return on the capital outlay fell from 8·54 to 6·81 per cent.

The area irrigated by the Môn Canals rose on account of improvement in irrigation and absence of floods from 58,089 to 58,601 acres, which include 10,931 acres irrigated by No. 4 distributary of the South Môn Canal but credited to the Man Canal pending the completion of the Kalahaung distributary of the latter. The area under rice decreased owing to the popularity of white beans (*pèbyugale*). The revenue demand fell from Rs. 3·87 lakhs to Rs. 3·76 lakhs (of which Rs. 0·66 lakh was assessed on lands formerly irrigated by the Man Canal and still credited to it) of which Rs. 2·63 lakhs represented water-rate, Rs. 0·47 lakh land revenue and Rs. 0 66 lakh consolidated rate. The gross revenue fell from Rs. 3·26 lakhs to Rs. 2·27 lakhs, the working expenses from Rs. 1·73 lakhs to Rs. 1·48 lakhs and the nett revenue from Rs. 1·53 lakhs to Rs. 0·79 lakh, but Rs. 0·94 lakh remained uncollected at the end of the year. The return on the capital outlay fell from 2·7 to 1·40 per cent.

The Ye-u Canal was still under construction and so produced an insignificant amount of revenue.

Minor irrigation works.

137. Nearly all the irrigation works in the Province classed as "Minor" lie in Upper Burma. Among many improvements and repairs to minor irrigation works in hand in the year of report may be mentioned the head sluice to the Shanmyaung distributary of the Shwetachaung Canal in the Mandalay District; the strengthening of the embankment of the Nyaungyan-Minhla Tank in the Meiktila District; the rebuilding of the Hteinnyetkyon Weir and the remodelling and extension of the Pauktan Weir in the Yamèthin District; and the repair of the mattress protection of the head of the Myaungmadaw Canal and the pitching below the Paungse Weir in the Salin system in the Minbu District.

The area irrigated by the Zawgyi and Panlaung systems in the Kyaukse District fell from 89,189 acres to 78,614 and from 59,726 acres to 50,722, respectively. The decrease was due to the failure of white beans and sessamum on irrigated lands on account of heavy rainfall and the low price of rice which encouraged the growing of white beans on high unirrigated land. The credits on account of consolidated rates fell from Rs. 4·33 lakhs to Rs. 3·87 lakhs and from Rs. 2·81 lakhs to Rs. 2·41 lakhs, respectively.

The area irrigated in the Minbu District from the Man Canal rose from 16,851 acres to 17,126 and from the Salin Canals from 27,957 to 28,169. The increase was due to improved irrigation and changes made in certain watercourses. The credits from consolidated rates rose accordingly from Rs. 1·05 lakhs to Rs. 1·07 lakhs and from Rs. 1·105 lakhs to Rs. 1·110, lakhs, respectively. To the figure for the Man Canal for the year of report must be added a sum of Rs. 65,935 on account of the area temporarily irrigated from the Môn Canal (see paragraph 136).

The area irrigated by the Shwetachaung Canal in the Mandalay District fell from 16,235 acres to 15,744 and the credits on account of consolidated rates from Rs. 0·74 lakh to Rs. 0·73 lakh, the decrease in area being due to flooding from the Irrawaddy River. In the Mu Canal in the Shwebo District the area irrigated rose from 12,013 acres to 18,081 and the credits on account of consolidated rates from Rs. 16,837 to Rs. 25,161, the increase being due to a more accurate delimitation of the irrigated tract, an ampler supply of water and better supervision of its distribution. In the Meiktila District water for irrigation is supplied from the Meiktila Lake, the Nyaungyan-Minhla tank and minor works. All three showed decreases in area irrigated, which was attributed to badly distributed rainfall. The total irrigated area fell from 99,354 acres to 84,391 and the credits on account of consolidated rates from Rs. 1·92 lakhs to Rs. 1·70 lakhs. In the Yamèthin District the area irrigated from the Kyaukse tank fell from 8,293 acres to 8,191, but that from minor works, owing to more economical distribution, rose from 37,287 acres to 45,766.

The gross receipts from minor irrigation works in Upper Burma fell from Rs. 15·16 lakhs to Rs. 11.83 lakhs, the working expenses from Rs. 6·20 lakhs to Rs. 5·63 lakhs, the nett revenue from Rs. 8·96 lakhs to Rs. 6·20 lakhs and maintenance charges rose from Rs. 2·13 lakhs to Rs. 2·32 lakhs.

CHAPTER V.

REVENUE AND FINANCE.

REFERENCES—

Report on the Land Revenue Administration of Burma during the year ended the 30th June 1918.

Administration Report of the Public Works Department, Burma (Irrigation), for the year 1917-18.

Report on the Maritime Trade and Customs Administration of Burma for the official year 1917-18.

Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the official year 1917-18, Part I, Foreign Trade.

Report on the Administration of the Excise Department in Burma during the year ended the 31st March 1918.

Report on the Administration of Salt Revenue in Burma during the year 1917.

Note on the Administration of the Stamp Revenue in Burma during the year 1917-18.

Note on the working of the Income-tax Act, II of 1886, in Burma, for the year 1917-18.

Report on the Forest Administration of Burma for the year ended the 30th June 1918.

Report on the working of the Rangoon Municipality for the year 1917-18.

Report on the Reclamation of Rangoon Town Lands for the year 1917-18.

Resolution reviewing the Reports on the working of Municipal Committees in Burma (except Rangoon) during the year 1917-18.

Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volume II.

Statistical Abstract for British India, Volumes II and IV.

Provincial Settlement.

138. The receipts and expenditure of the Province, other than those pertaining to Local authorities, are divided between the Imperial and Provincial Governments in accordance with the terms of what is known as the Provincial Settlement. The existing Provincial Settlement was drawn up in 1907, but its terms were modified in 1911 with a view to converting large fixed assignments which the Province then received from Imperial Revenues, into shares of growing revenue. The original Provincial Settlement was described in the General Administration Report of 1907-08, and the subsequent modifications were summarised in the General Administration Report of 1911-12. In 1915-16, in view of the fact that the Settlement had proved less favourable to the Province than had been anticipated, an additional recurring assignment from Imperial to Provincial Revenues of Rs. 15·11 lakhs was sanctioned and a progressive guarantee was given of a minimum total growing revenue advancing by Rs. 8 lakhs a year from Rs. 479·46 lakhs in 1911-12 up to Rs. 575·46 lakhs in 1923-24, and thereafter a minimum total revenue of the latter amount exclusive of assignments. No modification was made in the year of report or the previous year.

Gross Revenue and Expenditure.

139. The gross receipts for the Province for the year of report fell from Rs. 12,72·11 lakhs to Rs. 12,39·81 lakhs and the gross expenditure from Rs. 8,76·42 lakhs to Rs. 8,68·42 lakhs. Imperial Receipts rose from Rs. 4,29·29 lakhs to Rs. 4,49·52 lakhs and Provincial fell from Rs. 5,93·34 lakhs to Rs. 5,55·59 lakhs. Receipts of District and District Cess Funds fell from Rs. 55·22 lakhs to Rs. 51·17 lakhs; of other local funds from Rs. 88·68 lakhs to Rs. 84·73 lakhs; and of Municipalities from Rs. 1,05·58 lakhs to Rs. 98·79 lakhs. Imperial expenditure fell from Rs. 61·62 lakhs to Rs. 53·18 lakhs and

Provincial rose from Rs. 5,59·06 lakhs to Rs. 5,78·27 lakhs. The expenditure of District and District Cess Funds rose from Rs. 56·62 lakhs to Rs. 58·24 lakhs; of other local funds fell from Rs. 89·75 lakhs to Rs. 83·30 lakhs; and of Municipalities fell from Rs. 1,09·38 lakhs to Rs. 95·44 lakhs.

These figures include the transactions of the Akyab Port Fund, the Rangoon Port Trust, the Rangoon Municipality, the Rangoon Pilot Fund and the Moulmein Municipality, although they do not bank with Government.

(*a*) *IMPERIAL REVENUE AND FINANCE.*

[*In this section are discussed sources of revenue or expenditure which are partly as well as those which are wholly Imperial.*]

Total Imperial figures: notable variations.

140. The net increase of Rs. 20·23 lakhs in Imperial receipts was the result of a gross increase of Rs. 48·02 lakhs derived chiefly from "Salt," "Excise," "Customs" and "Income-tax" and a gross decrease derived from "Land Revenue," "Stamps" and "Transfers between Provincial and Imperial." The receipts from "Salt" rose owing to the increase in local manufacture; from "Excise" owing to the increase of the wholesale price of opium; from "Customs" owing to the increase in exports and to the excise duty on motor spirit introduced during the year; and from "Income-tax" owing to the introduction of the super-tax and the increase in prosperity of certain trades. The receipts from "Land Revenue" fell owing to the postponement of collection; from "Stamps" owing to the depression of trade and contraction of credit; and from "Transfers" owing to assignments from Imperial to Provincial for the improvement of the pay and training of teachers and to cover an increase in expenditure on the constitution of the Putao District.

The net decrease of Rs. 8·44 lakhs in Imperial expenditure was the result of a gross increase of Rs. 2·27 lakhs mainly under the heads "Refunds and Drawbacks," "Customs" and "Miscellaneous," and a gross decrease of Rs. 10·72 lakhs mainly under "Civil Works, Public Works Department" and "Irrigation Works." The expenditure under "Refunds and Drawbacks" rose owing to increase of refunds of income-tax and customs duty; under "Customs" to increase of fees for Sunday labour; and under "Miscellaneous" to increased cost of remitting treasure. The expenditure on "Civil Works" fell on account of decreased expenditure on original works and on "Irrigation Works" to the transfer of the Dredger "Lees" to the Military Department.

Land Revenue.

Land Revenue receipts.

141. The gross receipts under "Land Revenue" for the financial year fell from Rs. 4,73·71 lakhs to Rs. 4,13·74 lakhs, owing chiefly to the postponement of collections of land revenue proper. Under the terms of the Provincial Settlement three-eighths of the receipts are allotted to Imperial and the rest to Provincial Funds, so the amount credited to Imperial and Provincial Funds fell from Rs. 1,75·24 lakhs to Rs. 1,54·10 lakhs and from Rs. 2,97·47 lakhs to Rs. 2,59·64 lakhs, respectively. Expenditure under this head, which is wholly debitable to Provincial Funds, fell from Rs. 68·55 lakhs to Rs. 60·19 lakhs. This head includes receipts derived from the land-tax, or Land Revenue proper, the collections of which fell from Rs. 3,00·78 lakhs to Rs. 3,00·22 lakhs and which is dealt with in Chapter II of the Report, and various other items which are dealt with below.

Collections of capitation-tax in Lower Burma fell from Rs. 57·25 lakhs to Rs. 56·82 lakhs; the number of persons assessed fell from 1,421,443 to 1,407,680; Rs. 1·33 lakhs were remitted; and the sum outstanding at the end of the year rose from Rs. 1,165 to Rs. 5,752. The decrease in assessees was due to a decline in temporary immigration from Chittagong and Upper Burma of persons seeking work. The number of persons exempted, of whom most were exempted on account of poverty and old age, rose from 187,551 to 192,886. Collections of land rate in lieu of capitation-tax in certain towns rose from Rs. 0·94 lakh to

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Rs. 1·01 lakhs and the area assessed from 7,363 acres to 7,749, owing chiefly to extensions in Bassein, Prome and Toungoo; and remissions fell from Rs. 3,731 to Rs. 2,284.

Collections of *thathameda* in Upper Burma fell from Rs. 39·69 lakhs to Rs. 39·44 lakhs, and the number of households assesssed from 883,783 to 873,757. Remissions fell from Rs. 0·92 lakh to Rs. 0·59 lakh and the outstandings at the end of the year rose from Rs. 1,855 to Rs. 10,933. The number of exempted households rose from 108,471 to 110,989, of which most were exempted on account of poverty.

The demand of fishery revenue fell from Rs 31·63 lakhs to Rs. 31·23 lakhs, a recovery of nearly Rs. 20,000 under license fees being more than counterbalanced by a fall of nearly Rs. 60,000 in the rents bid at the auctions of leased fisheries, for which a poor season in the previous year in Upper Burma was mainly responsible. In the year of report the price of salt continued high, but there was some improvement in the market for fish and fish-paste and the catch was in most places good. Rents were collected with little difficulty and remissions, Rs. 14,859, were lower than in any of the previous six years. The total collections fell from Rs. 31·19 lakhs to Rs. 30·99 lakhs.

Collections of miscellaneous land revenue rose from Rs. 41·67 lakhs to Rs. 45·81 lakhs, nearly four and a quarter lakhs of rupees more than in the previous year. The increase was principally under the subhead "petroleum, rubies, jade and amber," petroleum contributing Rs. 3·49 lakhs and rubies, jade and amber Rs. 1·20 lakhs. "Other minerals" showed a fall of Rs. 0·33 lakh. Variations under the other sub-heads were comparatively unimportant. Receipts (chiefly fines) under the Village Act fell from Rs. 2·17 lakhs to Rs. 1·89 lakhs, the decrease being most noticeable in the Pegu Division.

Canal (Navigation and Irrigation) Revenue.

142. Paragraphs 89, 135, 136 and 137 of Chapter IV deal with the works for protection, navigation, and irrigation of the Province and the revenue obtained from them in the year of report. Receipts and expenditure on Major works are wholly Imperial; those on others are wholly Provincial. The only Major Canal works in the Province are the Mandalay, Shwebo, Môn and Ye-u Canals, which are Irrigation works, and the Twante Canal, which is a Navigation work.

Sources of Imperial Revenue other than the Land.

Customs.

143. Both receipts and expenditure under the head "Customs" are classified as Imperial and the former do not include the import duty on salt. The total collections for the year rose from Rs. 1,52·76 lakhs to Rs. 1,89·56 lakhs; those from "Imports" fell from Rs. 89·05 lakhs to Rs. 85·53 lakhs; and those from "Exports" rose from Rs. 61·88 lakhs to Rs 78·42 lakhs. The causes of these fluctuations are described in paragraphs 113—120. The expenditure on "Customs" rose from Rs. 7·20 lakhs to Rs. 7·63 lakhs and the increase was chiefly due to fees for Sunday labour. The nett revenue from "Customs" rose from Rs. 1,45·56 lakhs to Rs. 1,81,93 lakhs.

Opium.

144. Under the head "Opium" in the Imperial accounts there is no expenditure in Burma and the receipts include only the payments made by the Government of Burma to the Government of India for the purchase of opium. All other receipts and expenditure in connection with the drug are included under the head "Excise." In the year of report the Government of Burma spent Rs. 5·19 lakhs on the purchase of opium, the same as in the previous year.

Salt—General.

145. No change in law took place during the year 1917, but the Burma Salt Act, II of 1917, which came into force on the 1st of January, 1918, was passed and notifications were published under it. The excise duty on salt was raised on

the first day of 1917 from Re. 1 to Re. 1-4 per maund, the same as the customs duty, and both remained at this figure throughout the year. On the same day the composition duty was raised from 17 to 50 per cent. in accordance with the policy of encouraging the direct duty system. The Local Government intimated its intention to consider sympathetically proposals for the extension of the areas in which salt may be manufactured under that system, provided that the rate of duty was not less than the rate of customs duty leviable on imported salt and the manufacture could be adequately controlled by the Excise Department.

The cost of the salt establishment fell from Rs. 45,444 to Rs. 43,758 and the proportion of cost to revenue in the seven districts where the direct duty system is in vogue from 5·86 per cent. to 3·33. The decrease was due chiefly to increase of revenue; though the establishment increased, its pay somewhat decreased.

Supplies of Salt.

146. At the beginning of the calendar year the price of English salt in Rangoon was Rs. 147 per 1,000 viss (3,600 lbs.) but it rose to Rs. 153 in August, Rs. 157 in September and Rs. 159 in December. Aden salt began at Rs. 144, rose to Rs. 149 in August and remained at Rs. 154 from September till the close of the year. Port Said salt opened at Rs. 142, rose to Rs. 148 in August and remained at Rs. 154 from September till the close of the year. Spanish salt was quoted at Rs. 145 from January to July and rose to Rs. 150 in August, Rs. 155 in September, Rs. 156 in November and Rs. 157 in December. The price per maund of foreign salt thus varied from Rs. 3-3-11 to Rs. 3-10-2. The price of Burma-made salt in Rangoon varied from Rs. 125 to Rs. 135 in the first three months of the year, after which stocks were exhausted; with fresh arrivals in October prices rose to Rs. 145 and continued between that figure and Rs. 150 till the close of the year; so that the price per maund varied from Rs. 2-13-9 to Rs. 3-6-10. The average retail price of salt (foreign and Burma-made) per maund, which was Rs. 3-7-8 in 1915, rose again from Rs. 4-6-3 to Rs. 4-8-11. The estimated consumption of the Province, which has varied very slightly in the last ten years, fell from 2,550,000 maunds to 2,270,000 in the year of report. That of Burma-made salt increased by about 200,000 maunds, or 22 per cent. and that of foreign salt decreased by nearly 500,000 maunds, or 30 per cent. No change was made in the methods of assessment or manufacture. The output of salt in the seven districts in which the system of direct taxation is in force rose from 993,091 maunds to 1,119,473 and in the districts in which composition duty is levied the estimated output rose from 62,432 maunds to 68,755. The issue from bond of Burma-made salt in these seven districts increased from 855,562 maunds to 1,054,992, or by 23 per cent. The number of licenses under the direct duty system rose from 259 to 289, increases being marked in the Bassein and Amherst Districts, and under the composition duty from 878 to 911.

The revenue demand in the districts where the system of direct taxation is in force increased from Rs. 7·75 lakhs to Rs. 13·14 lakhs, or nearly 70 per cent.; that in the other districts from Rs. 25,186 to Rs. 38,982, or nearly 55 per cent.; and the total demand was Rs. 13·53 lakhs, or 69 per cent. more than the record figure of 1916.

The high price of salt caused by the shortage of shipping again stimulated production of Burma-made salt and so with enhanced duty the revenue from this salt greatly increased and more than counterbalanced the fall in revenue from foreign salt. The total salt revenue thus rose from Rs. 27·53 lakhs to Rs. 28·10 lakhs.

The customs duty on imported salt (including salt fish) fell from Rs. 19·53 lakhs to Rs. 14·57 lakhs. Imports of foreign salt fell by 44 per cent. from 1,918,232 maunds to 1,076,952, the lowest figure recorded since 1900, on account of shortage of shipping. Clearances from bond decreased by 29 per cent. from 1,592,308 maunds to 1,136,127 and the duty realized by 26 per cent. from Rs. 19·07 lakhs to Rs. 14·20 lakhs. Imports from the United Kingdom fell from 423,868 maunds to 241,928; from Aden from 589,970 to 206,298; and from Port Said from 438,278 to 181,028; but there was a slight increase from 426,028 to 436,598 in the imports from Spain. Imports from India fell from 40,044

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maunds to 10,991. The imports of salt fish fell again from 102,077 maunds to 80,904 and the duty thereon from Rs. 45,327 to Rs. 37,111—these figures are again the lowest on record and the decrease is due to shortage of shipping and increase in local production. Nearly all came from the Straits Settlements. At the end of the year in spite of the great decrease in imports there were 16,358 tons of foreign salt in bond, nearly half as much again as at the beginning.

A license for manufacture by solar evaporation was issued in the Amherst District.

Excise—General.

147. The effects of the war were shown in a further decrease in consumption of imported alcoholic liquors and an increase in that of those manufactured in the Province. The most important changes of the year were the introduction of the Madras tree-tax system of assessing *tari* (palmyra) palms in the Prome District as an experiment and the coming into force of the new Excise Act and Rules on the 1st of October 1917.

The gross receipts for the year rose from Rs. 88·24 lakhs to Rs. 92·27 lakhs. Up till last year the cost price to Government of excise opium was included, but even if allowance is made for this the figures of the year of report constitute a record. Revenue from alcoholic liquor rose from Rs. 47·83 lakhs to Rs. 49·23 lakhs and the total receipts from opium from Rs. 39·25 lakhs to Rs. 42·14 lakhs; the increases are attributed to the increase in the licit consumption of alcoholic liquor made in the Province and to the enhancement of the duty on opium. The expenditure on the combined establishment for excise and salt fell from Rs. 12·36 lakhs to Rs. 12·17 lakhs; the decrease was chiefly due to the decrease in rewards paid from Rs. 1·69 lakhs to Rs. 1·50 lakhs, consequent on diminished seizures of all classes of contraband.

Considerable additions were made to the combined establishment. The total number of arrests for offences of all classes against the excise and opium laws fell from 12,298 to 11,426 and convictions from 9,696 to 9,209, but the percentage of convictions rose from 79 to 81. Police and headmen co-operated with the excise staff, but headmen as usual lacked initiative.

Excise—Opium.

148. The receipts from opium license fees fell from Rs. 1·15 lakhs to Rs. 1·01 lakhs, and the increase in the total revenue derived from opium was due to the gain on issues of excise opium, which rose from Rs. 38·10 lakhs to Rs. 41·13 lakhs. As the consumption of licit opium decreased and the price to Government remained the same, Rs. 11 per seer, the increase in gain was due to the rise in the wholesale price at which the drug was sold by Government to licensees.

The quantity of opium, both excise and confiscated, issued to shops fell from 48,539 seers to 47,675. Half the districts showed decreases and half increases, but there was a marked decrease of 1,810 seers in the Tharrawaddy District, which was due to a rigorous revision of daily allowances and the exodus of persons engaged in illicit retail. The large increase in the Tavoy District was due to the influx of Chinese to work in the mines. The incidence of consumption per thousand of the population fell from 4·57 to 4·49 seers. The issues of opium to registered Burmans, Shans and Indians are on a scale which does not allow a margin for disposal to others, but it is probably otherwise in the case of issues to Chinamen. The experiment of fixing their allowances through Chinese advisory committees was not successful except in Thatôn, where it resulted in a reduction of Chinese consumers and in the daily maximum quantity they were permitted to buy, and in Mergui where several wealthy Chinese merchants, who had hitherto obtained opium through their friends and employees, were added to the list of regular customers of the shop.

Contraband opium may be divided into excise opium imported by sea or land, Chinese and Shan opium imported by land; and opium bought in the shops and distributed by hawkers. The scarcity of shipping and the great demand for opium in China caused a diminution in smuggling of excise opium imported by sea and the restrictions enforced in Bengal have practically stopped its import by land; probably no Chinese opium was brought into the Province and the smuggling of Shan opium has been greatly reduced by the high price, due to

demand for it in China, prevailing in the Northern and Southern Shan States, especially the former, where at one time it reached Rs. 290 per viss; hawking was kept well under control and the price of 3 tolas of illicit opium was usually about three or four times that of licit opium which at most shops is Rs. 4-2-0. Inquiries seemed to show that the consumption of opium among Burmans was decreasing, but that the illicit use of the drug was widespread in feverish tracts.

The wholesale prices charged by Government to vendors were revised and the retail prices charged by vendors to customers were in consequence raised by one anna per tola (that is, Rs. 5 per seer) and the rates in force in the Province for raw and cooked opium were made uniform except in one very remote shop. The discontinuance of cooking opium for sale in the shops was considered; it was decided to restrict the sale of cooked opium to smokers, and to refuse to sell them raw opium save in exceptional cases. The number of licenses for retail vend remained the same, 124, as in the previous year; the license fees which are fixed at a quarter of the estimated gross profit of the licensees fell from Rs. 1·13 lakhs to Rs. 0·97 lakh.

The vendors (licensees) appeared to carry out their duties of salesmen honestly and efficiently, but the information given by them regarding illicit dealings in opium, for which they now receive rewards in the same way as the general public, was not great.

The number of arrests and convictions made under the Opium Act for illicit dealings in opium fell from 2,672 to 2,477 and from 2,179 to 2,030, respectively, and the percentage of convictions to arrests rose from 81·5 to 82. No case of illicit cultivation was reported. The quantity of opium seized fell from 1,360 seers to 1,075; there were large decreases in Rangoon and Akyab, but an increase in the Tharrawaddy District, owing to vigorous measures taken there, and in the Bhamo District in which large seizures were made in the hills where the poppy is grown. A seizure of 187 seers was made under the coal on board a steamer in Rangoon harbour which had loaded general cargo direct for China at Calcutta.

The allotment of secret service money was reduced from Rs. 8,353 to Rs. 6,942 and the amount expended fell from Rs. 6,840 to Rs. 4,208, of which Rs. 3,245 was spent in opium cases.

Excise—Liquors.

149. The total quantity of liquors of all sorts imported into Burma again decreased from 674,823 gallons to 454,883 and the value from Rs. 32·86 lakhs to Rs. 26·43 lakhs. Imports of ale, beer and porter fell from 448,223 gallons to 285,270, of potable spirit from 196,668 gallons to 148,169; and of wines from 28,597 gallons to 17,259. There was a remarkable increase in the share of Japan in the imports of ale, beer and porter. Most of the brandy came from France, of the gin from Great Britain and of the rum from Java. The clearances for consumption in Burma of brandy, gin, rum and whisky fell from 153,682 gallons to 102,407. The decreased imports of beer resulted in an increase in the output of the only brewery in the Province from 191,868 gallons to 281,747 and the duty rose from Rs. 53,963 to Rs. 96,723, a record figure.

Burma foreign spirit, that is liquor manufactured in the Province in imitation of imported liquors, was manufactured at three distilleries in Mandalay, Toungoo and Moulmein. The quantity (London proof) issued on payment of the full duty of Rs. 11-4-0 per gallon rose from 8,861 gallons to 11,572; at the privileged rate (to troops and military police) of Rs. 3-8-3 per gallon from 15,020 gallons to 16,996; and the amount of duty realized from Rs. 1·54 lakhs to Rs. 1·92 lakhs. The number of wholesale licenses for the sale of foreign liquors including imported liquor and local liquor excised at the tariff rate fell from 93 to 91; of licenses for the retail vend of foreign liquor in public houses from 169 to 163; and of special licenses in hotels, railway refreshment rooms, etc., for sale of liquor from 155 to 151. License fees for the sale of beer fell from Rs. 23,935 to Rs. 21,058 and for the sale of other foreign liquors from Rs 7·22 lakhs to Rs. 5·47 lakhs. The decrease in the former is due to the decrease in the number of licenses issued and in the latter to the continued decline in the foreign liquor trade.

A comprehensive revision of duty under the contract distillery system was introduced at the end of the year. The issues of spirit rose from 78,459 London

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proof gallons to 82,152 and the average strength of issue rose from 42·24 degrees under proof to 41·53. No progress was made towards fixing uniform strengths of issue. The duty increased from Rs. 3·58 lakhs to Rs. 3·75 lakhs. The system appeared the most suitable for the Province for country spirit, but the need of more warehouses was felt. The number of licenses for the sale of country spirit rose from 144 to 149 to meet a demand among the spirit drinking population of the Toungoo and Thatôn Districts, chiefly Karens, hitherto met from illicit sources, and the fees from Rs. 2·51 lakhs to Rs. 2·96 lakhs. There were, as in the previous year, 12 outstills and 24 shops licensed for sale of outstill spirit in five districts, but the locality of one outstill was moved to suit the workers in the forest who form most of its customers; receipts rose from Rs. 17,520 to Rs. 20,800.

The Madras tree-tax system of excising *tari* (toddy) was introduced during the year into the Prome District as an experiment and proved a success. The tax was fixed at Rs. 2 a year per tree for palmyra palms and Rs. 3 per half-year for cocoanut palms—the lowest rates in force in Madras—talipot palms were classed as palmyra. Licenses for the sale of *tari* were issued in the same districts as in the previous year, but the total fell from 636 to 616. Receipts however rose from Rs. 6·87 lakhs to Rs. 7·97 lakhs, in spite of the introduction of the tree-tax and consequent decrease in the Prome District. Licenses for the sale of country fermented liquor other than *tari* were issued in the same 15 districts in Lower and 5 in Upper Burma as in the previous year and fell in number from 375 to 366. In the Bassein District there was a decrease of 10 such licenses. The license fees rose from Rs. 25·13 lakhs to Rs. 25·94 lakhs, a record figure.

The gross revenue from alcoholic liquor rose from Re. 0·454 to Re. 0·467 per head of the population; the consumption of country liquors increased and that of foreign liquors decreased.

Seizures of foreign fermented liquor fell from 330 gallons to 81 and of foreign spirit rose from 39 gallons to 56. Seizures of country spirit fell from 1,857 gallons to 1,763; of *tari* (palm juice) from 5,621 gallons to 4,614 and of other country liquors from 21,620 gallons to 19,447 For offences relating to country spirit the number of arrests fell from 2,412 to 2,191 and of convictions from 1,916 to 1,787, chiefly owing to the decrease in convictions for illicit distillation, and the percentage of convictions rose from 79 to 82. For offences relating to country fermented liquor of all classes the number of arrests rose from 4,942 to 4,973 and of convictions from 3,904 to 4,072 and the percentage of convictions rose from 79 to 82. The district showing the highest number of convictions for illicit distillation was Thatôn where a special effort to suppress it was made during the year. Convictions for drunkenness fell from 5,292 to 3,785, or from 4·29 to 3·03 per thousand of population and the number of cases reported by Magistrates in which intoxicating liquor was the cause of, or contributory to, the commission of crime, from 373 to 330. In Lower Burma 30 per cent. and in Upper Burma 70 per cent. of the crime attributed to drink was due to drink obtained from illicit sources or uncontrolled areas.

Ganja, cocaine and morphia.

150. The number of licenses issued for the possession of hemp drugs for veterinary purposes, fell from 24 to 20. Otherwise, except in the case of veterinary practitioners, their use was as in previous years prohibited. The quantity seized during the year fell from 190,557 to 165,896 tolas, or nearly two tons. Convictions of all kinds in connection with hemp drugs fell from 738 to 721. These drugs are used by Indians only, and Burmans, though they freely engage in smuggling them, do not use them. Enquiries were made during the year with a view to reconsideration of their prohibition.

The number of licenses for the sale of cocaine rose from 40 to 43; the amount seized fell from 347,555 grains to 322,834, or a little over 46 lbs. avoirdupois; convictions fell from 594 to 408, of which 7 were for smuggling; the source of the drug seemed still to be the Far East.

The number of licenses for the sale of morphia by pharmacists remained the same, 45. Seizures fell from about 14 lbs. avoirdupois to 5·67 lbs. or nearly 0,000 grains. Convictions fell again from 274 to 122. The high price has

caused a decrease in the illicit use of the drug, especially in the Henzada District, where it had firmly established itself.

Stamps.

151. There were no changes in the year of report in the law relating to court-fees or stamps, but remission of stamp duty was allowed in four classes of documents, two of which came into prominence on account of the war. In order to facilitate transactions in the wolfram industry the Treasury Officer, Tavoy, was empowered to fix and impress labels under the Indian Stamp Rule 9.

Gross receipts under the Court Fees Act and the Stamp Act fell about equally and taken together fell from Rs. 36·65 lakhs to Rs 31·82 lakhs. This result was due to depression in agriculture and restriction of foreign trade, both caused by shortage of shipping. Every district, except Rangoon, Salween, Tavoy, Minbu, Bhamo and the Ruby Mines, showed a decrease in receipts from court-fee stamps ; those for the Province fell from Rs. 20·95 lakhs to Rs. 18·47 lakhs ; in Rangoon the increase was due partly to higher fees paid on suits for probate and letters of administration. The decrease in receipts from non-judicial stamps from Rs. 15·69 lakhs to Rs. 13·36 lakhs was shared by all districts except six. There were small increases in Rangoon in receipts from *hundis* (inland bills of exchange), share transfer stamps and in the duty paid for embossing stamps on forms for receipts and cheques. In connection with the last the discovery was made that Chetty money-lenders had been in the habit of issuing unstamped forms of cheques to their clients, adding the word " memorandum " as if to alter their character ; steps were taken to prevent this evasion of the law.

The number of licensed stamp vendors was reduced from 2,313 to 2,159 (105 licenses being withdrawn from headmen in the Henzada District who had made no use of them) and the amount of discount allowed to them fell from Rs. 49,885 to Rs. 38,860. As *ex-officio* vendors, who receive no discount, sell the higher denominations of stamps and this decrease is more than proportionate to the decrease in receipts from sales, it is probable that the decline in sales was greater in stamps of small value.

The number of cases of unstamped or insufficiently stamped instruments dealt with under section 35 of the Stamp Act fell from 919 to 784 and the duty and penalty realised from Rs. 10,941 to Rs. 8,012, but those dealt with by Collectors rose from 398 to 439 and the duty and penalty realised from Rs. 6,348 to Rs. 16,049—half of this last sum being paid on a single instrument in Rangoon. The number of persons tried for offences against the Stamp Law fell from 45 to 17 and all but one were convicted. The amount of fines imposed rose from Rs. 245 to Rs. 394 and of rewards disbursed from Rs. 696 to Rs. 987. The number of cases in which inquiries into the valuation of estates were instituted fell from 383 to 297, but the amount of deficit court fees rose from Rs. 10,185 to Rs. 14,470, in which was included a sum of Rs. 10,538 discovered in Rangoon of which Rs. 10,207 was concerned in a single case.

Charges on account of discount on and establishment for the sale of stamps fell from Rs. 63,089 to Rs. 52,027 ; refunds from Rs. 36,946 to Rs. 31,866 ; and the total charges from Rs. 1,02,253 to Rs. 86,147. The nett receipts fell from Rs. 35·62 lakhs to Rs. 30·96 lakhs. These figures do not include the cost of general supervision which fell from Rs. 25,177 to Rs. 24,082, or the cost of stamps which fell from Rs. 10,041 to Rs. 8,139.

Assessed taxes.

152. There was no extension in the year of report of the Income-tax Act to new areas. Directions 7 and 9 made under it were cancelled. The Super-tax Act came into force on the 1st of April 1917. The method of assessment remained the same. Difficulty was experienced in obtaining a reliable Chetty assessor in the Irrawaddy Division. The appointment of the Headquarters Assistant as Collector for the whole district of Tavoy was attended with good results and the post of Deputy Collector of Income-tax was substituted for that of Income-tax Assessor in Rangoon.

Under the head " Tax on Salaries, Pensions and Gratuities paid by Government " the number of assessees rose from 5,506 to 6,018, but the amount of tax collected fell from Rs. 5·58 lakhs to Rs. 5·52 lakhs.

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Under the head "Tax on Interest on Securities" the amount of tax collected rose from Rs. 70,591 to Rs. 84,192 and the value of the securities taxed from Rs. 4,70 lakhs to Rs. 4,74 lakhs. This tax is collected in Rangoon and Moulmein only.

Under the head "Tax on Salaries, Pensions and Gratuities paid by local authorities" the number of assessees fell from 986 to 925, owing chiefly to the departure of officers on military duty, but the amount of tax rose from Rs. 58,984 to Rs. 59,331.

Under the head "Tax on Salaries paid by Companies and other private employees" the number of assessees rose from 5,827 to 6,492 and the amount of tax collected from Rs. 5·02 lakhs to Rs. 5·99 lakhs. The increase was due chiefly to increased energy of the collectors. The number of firms collecting the tax rose from 120 to 123.

Under the head "Tax on profits of companies" the number of companies assessed rose from 67 to 75 and the amount of tax collected from Rs. 13·70 lakhs to Rs. 18·94 lakhs, the highest figure on record. All but two per cent. of the tax was paid in Rangoon, where, of 162 companies on the register, 67 were exempted on production of certificates of payment of the tax in India and 35 were found to have no assessable income.

Under the head "Tax on other sources of income" the number of assessees rose from 14,797 to 15,439, but the amount of tax collected only from Rs. 14·41 lakhs to Rs. 14·47 lakhs. The increase in Rangoon was due to more rigorous assessment on the returns obtained under section 14A of the Act, in the Amherst District to the prosperity of the salt trade, and in several districts to more careful administration.

The total number of assessees increased from 27,183 to 28,949 and the total tax collected from Rs. 40 lakhs to Rs. 46·35 lakhs. The number of petitions and objections increased from 4,112 to 4,245 and the consequent reduction of assessment was 10 per cent., very slightly more than in the previous year. Expenditure rose from Rs. 55,500 to Rs. 61,356, owing chiefly to increases in Rangoon and Tavoy, where the establishments were increased in order to carry out the procedure of section 14A of the Act, but also to increases in allowances paid to employers who collected the tax. The nett collections rose from Rs. 39·66 lakhs to Rs. 46·36 lakhs, the increase in Rangoon being Rs. 6·40 lakhs and marked increases occurring in the Myaungmya, Mergui, Amherst, Tharrawaddy and Thatôn Districts. Refunds rose from Rs. 50,216 to Rs. 96,261, to which Rangoon contributed Rs. 88,290. The balance outstanding at the close of the year rose from Rs. 1·66 lakhs to Rs. 2·76 lakhs of which Rs. 2·5 lakhs were due in Rangoon, where three companies were unable to declare their profits till late in the year. The tax was collected without difficulty and the number of coercive processes fell from 421 to 287.

The total amount of super-tax collected was Rs. 1·57 lakhs, of which Rs. 1·22 lakhs were obtained in Rangoon and Rs. 29,029 in Tavoy.

(*b*) *REVENUE AND FINANCE OTHER THAN IMPERIAL.*

Provincial Receipts and Expenditure.

Provincial receipts.

153. The nett decrease of Rs. 37·75 lakhs in Provincial receipts was the result of a gross increase chiefly under "Excise," "Income-tax" and "Transfers between Imperial and Provincial" and of a gross decrease chiefly under "Land Revenue," "Stamps," "Police" and "Minor Works and Navigation." The causes of most of these increases and decreases have been explained in paragraph 140. The receipts under "Police" fell owing to a decrease in recoveries on account of punitive police and under "Minor Works and Navigation" partly to the cultivation of white beans instead of rice, which is assessed at a much higher rate of revenue, and partly to arrears in collections.

Provincial expenditure.

154. The increase of Rs. 19·21 lakhs in Provincial expenditure was the nett result of a gross increase of Rs. 32 lakhs chiefly under the heads "Forests,"

"Police," "Education," "Political," "Agriculture" "Minor Works" and "Civil Works, Public Works Department," and of a gross decrease chiefly under the heads "Land Revenue" and "Courts of Law." The expenditure under "Forest" rose owing chiefly to increase of departmental extraction of teak in the Pegu Circle; on "Police" to increased expenditure on arms and accoutrements for the Military Police, kit allowance to recruits, warrants for railway fares, etc.; under "Education" to increase in grants to Anglo-Vernacular and European Schools and to certificated teachers; under "Political" to increase of outlay on Military Police and contingent expenditure in consequence of the disturbances in the Chin Hills; under "Agriculture" owing to the increase in the activity of the Co-operative and Agricultural Departments; under "Minor Works" to the increase in outlay on the new Yandoon island embankment in the Ma-ubin District and the transfer of two steam launches; and under "Civil Works" to the increased outlay on original works and repairs and to the acquisition of the site of the Burma University. The expenditure under "Land Revenue" fell owing to the decrease of commission paid consequent on the postponement of collections, the disbandment of a settlement party and the deputation of many officers to military service; and under "Courts of Law" to the fact that the total for the previous year was swelled by the cost of a special tribunal which sat in Mandalay.

Forests.

155. The Forest Department Report deals with the year ending on the 30th of June 1918 and the figures for revenue and expenditure given in it therefore differ from those compiled in the Finance Department. The gross revenue of the year ending on the 30th of June fell from Rs. 1,27·09 lakhs, which was a record figure to Rs. 1,26·76 lakhs. The revenue derived from timber extracted departmentally fell by Rs. 2 lakhs in the Pegu Circle, the decrease being due to the fall in the price of teak owing to lack of shipping, and by nearly Rs. 0·75 lakh in the Southern Circle, but rose in the Tenasserim and Northern Circles. The generally steady increase under "Other produce removed by Government Agency" and "Firewood and charcoal removed by consumers" was due to the increased use of wood as fuel in railways and steamers owing to the difficulty of obtaining coal. The revenue derived from timber extracted by consumers rose by nearly Rs. 4 lakhs in the Tenasserim Circle and fell by rather more in the two circles in Upper Burma. The increase was due to activity of extraction by licensees to meet the demands of the Military Department and the decrease to diminution of outturn by lessees who were overstocked on account of lack of freight and to a relatively poor floating season. An increase of over half a lakh of rupees under "Other minor products extracted by consumers" was due chiefly to the receipts from the export duty on rubber which are now credited to that circle. Owing to the dull market receipts from the sales of drift timber salved from and the import of foreign timber by the Salween River were reduced.

The expenditure rose from Rs. 50·91 lakhs to Rs. 52·86 lakhs. That on "exploitation" rose from Rs. 18·22 lakhs to Rs. 20·29 lakhs owing to increase in departmental operations, the timber being mostly stored on account of bad prices, and that on "Protective Establishment" fell by Rs 66,000 owing to the delegation of several gazetted officers to military duty.

Local Funds.

District Cess Funds.

156. A District Cess Fund is maintained for local purposes in each of the 21 districts in Lower Burma. No change took place in their number or constitution. Their aggregate receipts fell from Rs. 43·10 lakhs to Rs. 38·05 lakhs. Those under "Provincial Rates" fell from Rs. 26·64 lakhs to Rs. 19·40 lakhs, owing chiefly to the postponement of collection of land revenue allowed by Government on account of difficulty of sale of the rice crop.

Their aggregate expenditure rose from Rs. 42·11 lakhs to Rs. 45·19 lakhs. Expenditure under "Education" rose from Rs. 6·48 lakhs to Rs. 7·36 lakhs,

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owing chiefly to increases in grants to schools and teachers; under "Miscellaneous" from Rs. 3·19 lakhs to Rs. 5·29 lakhs, owing chiefly to contributions paid by certain of the funds to cover overdrafts made by others; under "Civil Works—in charge of Officers of the Public Works Department," from Rs. 22·03 lakhs to Rs. 22·96 lakhs, owing chiefly to increased outlay in the Tavoy District; and under "Debt Accounts" from Rs. 1,490 to Rs. 2·81 lakhs, owing to investments in the war loan. Expenditure under "Civil Works—in charge of Civil Officers" fell from Rs. 4·29 lakhs to Rs. 1·06 lakhs, owing partly to decrease in the acquisition of land taken up for public purposes.

All the funds were solvent at the close of the year although the aggregate closing balance fell from Rs. 26·51 lakhs to Rs. 19·37 lakhs.

District Funds.

157. A District Fund is maintained for local purposes in each of the 16 districts in Upper Burma. These Funds are not endowed, as the Lower Burma District Cess Funds are, with a cess on land revenue, but derive their income from various sources such as bazaar-rents, slaughter-house licenses, ferries and contributions from Provincial Funds. Their aggregate receipts during the year rose from Rs. 12·12 lakhs to Rs. 12·67 lakhs; those under "Police" rose from Rs. 1·92 lakhs to Rs. 2·02 lakhs; under "Agriculture" from Rs. 0·65 lakh to Rs. 0·77 lakh; and under "Civil Works—in charge of Civil Officers" from Rs. 5·85 lakhs to Rs. 6·17 lakhs, chiefly owing to an increase in contributions.

The aggregate expenditure fell from Rs. 14·50 lakhs to Rs. 12·60 lakhs; that under "Agriculture" rose from Rs. 0·77 lakh to Rs. 0·83 lakh; under "Miscellaneous" from Rs. 1·45 lakhs to Rs. 1·61 lakhs, owing partly to an increase in outlay on conservancy; and under "Debt Accounts" from Rs. 700 to Rs. 65,300, owing to investments made in the War Loan. Expenditure under "Civil Works in charge of Civil Officers" fell from Rs. 2·20 lakhs to Rs. 1·82 lakhs, owing partly to a decrease in outlay on various public improvements; and under "Civil Works in charge of Officers of the Public Works Department" from Rs. 9·54 lakhs to Rs. 7·12 lakhs, owing chiefly to a decrease in expenditure in the Magwe, Lower Chindwin, Sagaing and Yamèthin Districts. All the District Funds were solvent at the end of the year and the aggregate closing balance rose from Rs. 2·80 lakhs to Rs. 2·87 lakhs.

Other Funds.

158. The other local funds in Burma are the Cantonment, Town, Port, Pilot, Rangoon Police Reward, Steam-boiler Inspection and Educational Syndicate Funds.

The number of Cantonment funds was seven as in the previous year in Rangoon, Mandalay, Meiktila, Shwebo, Thayetmyo, Maymyo and Bhamo. The aggregate opening balance fell from Rs. 58,078 to Rs. 25,932 and the aggregate closing balance rose from Rs. 25,932 to Rs. 38,580; the total receipts (excluding debt accounts) rose from Rs. 1·87 lakhs to Rs. 2·14 lakhs and the expenditure fell from Rs. 2·19 lakhs to Rs. 2·02 lakhs. In Rangoon the income rose from Rs. 72,572 to Rs. 83,892, all under the heads "Land Revenue" and "Assessed Taxes" and the expenditure fell from Rs. 1,00,149, to Rs. 81,054, chiefly under the head "Public Works." In Mandalay the income rose from Rs. 61,696 to Rs. 71,022, chiefly due to grants-in-aid, and the expenditure from Rs. 62,842 to Rs. 70,473, all under "Public Works." In Meiktila the income fell from Rs. 11,705 to Rs. 9,064 and the expenditure from Rs. 12,710 to Rs. 10,142. In Shwebo the income fell from Rs. 6,920 to Rs. 6,127 and expenditure rose from Rs. 5,673 to Rs. 6,634. In Thayetmyo the income rose from Rs. 8,464 to Rs. 11,625 and expenditure fell from Rs. 7,825 to Rs. 6,472. In Maymyo the income rose from Rs. 18,023 to Rs. 19,115 and expenditure fell from Rs. 22,813 to Rs. 18,098. In Bhamo the income rose from Rs. 7,223 to Rs. 13,090 and expenditure from Rs. 7,036 to Rs. 8,392. The closing balance of every fund, except those of Meiktila and Shwebo, increased in the year of report.

The creation of two new Town Funds at Pyu in the Toungoo and Mawlamyainggyun in the Myaungmya District raised the number of these funds from 20 to 22. The total income and expenditure of all, except the two new funds, fell from Rs. 10 lakhs to Rs. 9·11 lakhs and from Rs. 9·87 lakhs to Rs 8·41 lakhs,

respectively. Increase in receipts was marked in Zigôn and Danubyu owing to increase in contributions from Government, and in Maymyo; but Kalaw showed a decrease for the opposite reason. Decreases in expenditure aggregating over Rs. 2 lakhs occurred in Minhla, Nattalin, Maymyo, Meiktila and Kalaw and increases aggregating to Rs. 66,191 in Zigôn, Magwe, Pyawbwe and Yenangyaung. The aggregate closing balances of all, excluding the two new funds, rose from Rs. 3·62 lakhs to Rs. 4·32 lakhs; that of all 22 amounted to Rs. 4·68 lakhs. Large balances were accumulated at Nyaunglebin, Maymyo and Pyawbwè of Rs. 0·63 lakh, Rs. 1·17 lakhs and Rs. 0·50 lakh, respectively, apparently for special public works. The balance at Danubyu rose from Rs. 17 to Rs. 27,681 and at Meiktila fell from Rs. 18,273 to Rs. 5,603.

Excluding the Rangoon Port Trust there were as before six Port Funds at Bassein, Moulmein, Akyab, Mergui, Tavoy and Kyaukpyu. Their total receipts and expenditure fell from Rs. 4·25 lakhs to Rs. 3·95 lakhs and from Rs. 4·32 lakhs to Rs. 3·63 lakhs, respectively, in the year of report. These decreases were shared by all except Mergui where there were increases in both and Moulmein where there was an increase in expenditure. The closing balances of Moulmein, Mergui and Kyaukpyu slightly decreased. The debt due to Government by the Moulmein Port Fund fell from Rs. 0·71 lakh to Rs. 0·52 lakh and by the Tavoy Port Fund from Rs. 0·68 lakh to Rs. 0·67 lakh.

There were as before four Pilot Funds, at Rangoon, Akyab, Moulmein and Bassein. They derived their income chiefly from fees for pilotage, and spent it mainly on the maintenance of pilot vessels and payments to pilots. The ordinary receipts of the Rangoon Fund fell from Rs. 2·92 lakhs to Rs. 2·91 lakhs and the ordinary expenditure from Rs. 3·15 lakhs to Rs. 2·92 lakhs. The closing balance rose from Rs. 22,638 to Rs. 27,834. Surcharge fees of 15 per cent. of the pilotage fees were sanctioned with a view to improve the position of the fund. The aggregate receipts of the other three funds fell from Rs. 1·11 lakhs to Rs. 0·90 lakh and their closing balances increased except in Moulmein.

The receipts of the Rangoon Police Reward Fund rose from Rs. 398 to Rs. 509 and the expenditure from Rs. 401 to Rs. 493. Its receipts are derived from fines inflicted on policemen and undisbursed rewards.

The receipts of the Steam-boiler Inspection Fund fell from Rs. 85,424 to Rs. 80,837 and the expenditure from Rs. 81,361 to Rs. 75,305 and the closing balance rose from Rs. 83,781 to Rs. 89,313.

The income of the Educational Syndicate Fund fell from Rs. 53,085 to Rs. 51,605, of which Rs. 22,300 was contributed by Government and the Rangoon Municipality and the rest derived from fees for examinations, etc. The expenditure fell from Rs. 55,274 to Rs. 53,143 and the closing balance from Rs. 17,112 to Rs. 15,574.

Road and Education Cesses.

159. In Burma petty local public works are carried out and contributions to the cost of education are made by the District Cess and District Funds reported on in paragraphs 156 and 157. No special cesses for these purposes are levied in the Province.

Municipal Revenues.

160. The gross receipts of the year of report including the opening overdraft of Rs. 1·63 lakhs fell from Rs. 51·68 lakhs to Rs. 48·86 lakhs. The total revenue fell by about Rs 15,000, but this was due to adjustments made in the previous year of the advances made in connection with the Sinking Fund investments for Reclamation loans. The ordinary revenue amounted to Rs. 46·31 lakhs, an increase of Rs. 83,421 over that of the previous year to which all major heads of revenue but one contributed. **Rangoon Municipality.**

The gross expenditure in the year of report fell from Rs. 53·31 lakhs to Rs. 46·95 lakhs and the ordinary expenditure from Rs. 43·95 lakhs to Rs. 41·14 lakhs. The expenditure under capital outlay fell from Rs. 65,934 to Rs. 13,236

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and Rs. 1·78 lakhs were advanced from revenue to finance works for which loans were to be raised. Including the advances of previous years the sum advanced from revenue for loan works up to the end of the financial year amounted to Rs. 19·34 lakhs. Besides this amount, Rs. 3·86 lakhs were temporarily appropriated from the money borrowed for certain works which were postponed, in order to meet the expenditure on more urgent new works which will ultimately have to be paid for out of borrowed capital when a loan can be raised. The closing balance was Rs. 1·91 lakhs.

There was an increase of income of nearly a quarter of a lakh of rupees under "Rates and Taxes," which was derived chiefly from taxes on vehicles and conservancy and water-rates, and of over Rs. 6,000 under "Hackney Carriages," including jinrickshaws, and of Rs 77,500 in receipts from rents, markets and slaughter-houses (due to extension of premises), fees from pawnshops interest, etc.

Expenditure under "Charges on account of Health Officers and Sanitary Inspectors" fell by Rs. 18,900, owing to decrease in outlay on the paving of drainage spaces, the laboratory and the wash-house; under "Plague Charges" by Rs. 20,200 owing to a reduction of the temporary plague staff; under "Public Works" by Rs. 1·64 lakhs, owing to decrease of outlay on remetalling and tarring of roads; and under Public Instruction by Rs. 1·58 lakhs, owing chiefly to the transfer of the control of Anglo-Vernacular Education to the Local Government and a change in the method of determining the contribution of the Municipality to the school fund. On the other hand, expenditure under "Water-supply establishment, repairs, etc.," rose by Rs. 24,000, owing to the increase in the cost of coal, leaks in the dam at Hlawga, etc.; under "Drainage establishment, repairs, etc.," by Rs. 32,800 owing to the increase in the cost of coal; and under "Conservancy" by Rs. 46,500, owing to the increase of establishment and purchase of bullocks and carts.

Excluding loans raised for the Town Lands Reclamation Fund which are dealt with below, the loans outstanding at the close of the financial year fell from Rs. 1,31·73 lakhs to Rs. 1,31·15 lakhs. The yearly instalment of Rs. 57,500 towards the repayment of the loan of Rs. 23 lakhs raised in 1887 was paid from revenue. The loan charges for the year fell from Rs. 10·32 lakhs to Rs. 10·06 lakhs and included, besides the instalment already mentioned, Rs. 5·81 lakhs of interest, Rs. 3·58 lakhs of sinking fund and Rs. 8,875 of management charges.

From the amount available for the annual investment for sinking funds and the interest realised on securities the Municipality subscribed Rs. 3.48 lakhs towards the five per cent. Indian War Loan, repayable in 1929 and 1947 and so were able to convert at 76 per cent. three and a half per cent. Government paper to the value of Rs. 5,21,300 into securities of the five per cent. loan of the face-value of Rs. 3,96,200. The face value of the securities in the sinking fund (excluding those of the sinking fund for Reclamation loans) at the end of the year rose from Rs. 34·18 lakhs to Rs. 36·71 lakhs.

The sum of the loans raised for reclamation purposes remained at Rs. 60·5 lakhs and the amount in the sinking fund rose from Rs. 12·15 lakhs to Rs. 13·95 lakhs. The opening balance of the Reclamation Fund fell from Rs. 2·31 lakhs to Rs. 0·90 lakh and the closing balance at the end of the financial year was Rs. 3·49 lakhs. The receipts for the year of report rose from Rs. 6·70 lakhs to Rs. 9·48 lakhs, including a Provincial grant of Rs. 2·37 lakhs for various reclamation works and a contribution of Rs. 5·80 lakhs from the Land Sale and Rent Fund, and the expenditure fell from Rs. 8·10 lakhs to Rs. 6·89 lakhs, of which about Rs. 2 lakhs were spent on works, Rs. 2 lakhs on sinking fund investments and Rs. 2·5 lakhs on interest and management of loans.

Other Municipalities.

161. If the debt accounts amounting to Rs. 2·54 lakhs and the opening balances amounting to Rs. 16·83 lakhs are excluded, the total income of the municipalities in the Province (omitting Rangoon) fell from Rs. 49·70 lakhs, the highest figure for the past 16 years, to Rs. 44·24 lakhs. The income derived from municipal rates and taxes rose from Rs. 18·26 lakhs to Rs. 18·73 lakhs; that derived from municipal property and powers apart from taxation fell from Rs. 20·02 lakhs to Rs. 19·92 lakhs; that from grants and contributions fell from Rs. 9·89 lakhs to

Rs. 4·42 lakhs; and that under "Extraordinary and Debt" rose from Rs. 2·02 lakhs to Rs. 2·54 lakhs. Several committees reported a decline in the receipts from markets and bazaars which they ascribed to war conditions, but these figures show that the financial stringency felt throughout the Province did not affect them seriously. The large decrease in grants and contributions was chiefly due to the allotment of nearly Rs. 2 lakhs out of the Rs. 6 lakhs at the disposal of the Local Government to the Rangoon Municipality and the fact that nearly Rs. 0·75 lakh of the remainder was not allotted owing to the difficulties of carrying out works of all kinds during the war. Moreover contributions received from private sources for general and medical purposes fell from Rs. 35,593 to Rs.6,800.

No new system of taxation was introduced during the year. It was noted with satisfaction that a number of municipalities were considering the adoption of the system of taxation based on rental value which has the advantages of securing a fair incidence of taxation and of providing a source of income which expands with the prosperity of the town. The outstanding balance of the taxes of the municipalities rose from Rs. 28,155 to Rs. 41,746, including arrears of Rs. 15,783 at Toungoo and Rs. 4,756 at Mandalay. In one municipality commission was allowed only on collections made within the period prescribed for collection.

The total ordinary expenditure of the municipalities fell from Rs. 47·40 lakhs to Rs. 41·99 lakhs; that under "General Administration and Collection Charges" fell from Rs. 4·92 lakhs to Rs. 3·63 lakhs; that under "Public Health and Convenience" fell from Rs. 35·37 lakhs to Rs. 31·58 lakhs, chiefly owing to the decrease in the amount received in the form of sanitary grants; that under "Public Instruction" fell from Rs. 2·09 lakhs to Rs 1·83 lakhs; that under "Miscellaneous" fell from Rs. 1·58 lakhs to Rs. 1·38 lakhs; and that under "Extraordinary and Debt" rose from Rs. 3·97 lakhs to Rs. 4·86 lakhs. Variations in the expenditure under the heads "Public safety," "Water Works," "Drainage and Conservancy," "Hospitals and Dispensaries" and "Public Instruction" have been discussed in paragraph 71.

The receipt of a sanitary grant and of a grant from Provincial Funds enabled the Tavoy Municipal Committee to carry out extensive improvements to their conservancy system and their hospital and there was a notable increase in the expenditure on roads in the three municipalities of the Sagaing Division.

Three cases of embezzlement and one of temporary misappropriation of Municipal Funds were discovered during the year.

Other Funds.

162. Owing to the addition of a new fund during the year there are now five Educational Endowment Funds, namely the Jardine, the Maung Ohn Ghine, the Renoung, the Coplestone and the U Po Hnit Funds. These funds do not bank with Government and their accounts do not therefore appear in the Government books. The accounts of the Official Assignee are similarly excluded.

Paper Currency.

163. The average total or gross circulation of notes during the year rose from Rs. 6,02·30 lakhs to Rs. 6,24·57 lakhs. At the end of April 1917 the gross circulation was Rs. 6,36·02 lakhs; it fell to a minimum of Rs. 5,51·80 lakhs on the 5th November 1917 and rose to a maximum of Rs. 7,69·13 lakhs on the 11th March 1918. There is no reserve Treasury in Burma and to determine the active or nett circulation the value of notes of the Rs. 10,000 denomination has been excluded from the gross circulation. The average of the nett or active circulation on the last day of each month fell from Rs. 5,46·58 lakhs to Rs. 5,09·47 lakhs. The average note circulation increased steadily from 1907-08 to 1913-14. In the next year there was a considerable decrease; the following two years again showed increases; and the year of report showed a slight decrease. The

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percentage of circulation of the notes of the 10-rupee denomination to the circulation of all kinds of notes at the end of March fell from 59·53 to 57·04; that of the notes of the 100-rupee denomination rose from 35·04 to 37·19; of the notes of the 1,000-rupee denomination from 2·83 to 2·85; and of the notes of the 5-rupee denomination from 1·47 to 1·95. The use of the 5-rupee note has steadily increased since 1915. The issue of notes of the 1-rupee and $2\frac{1}{2}$ rupee denominations commenced only in the latter part of March 1918.

CHAPTER VI.

VITAL STATISTICS AND MEDICAL SERVICES.

REFERENCES—

Report on the Sanitary Administration of Burma for the year 1917.
Notes and Statistics on Hospitals and Dispensaries in Burma for the year 1917.
Report on the Working of the Burma Government Medical School, Rangoon, for the year 1917-18.
Report on the Working of the Pasteur Institute and Bacteriological Laboratory for the year ending 31st March 1918.
Report on the Lunatic Asylums in Burma for the triennium 1915-17.
Notes and Statistics on Vaccination in Burma for the year 1917-18.
Statistical Abstract for British India, Volume III.

Births and Deaths.

Area under registration and total population.

164. Owing to the exclusion for purposes of vital statistics of certain tracts in the Toungoo District the area under registration in that district has been reduced by 1,510 square miles and the population on which ratios for the purposes of vital statistics ratios have been calculated has decreased by 31,463 persons. The total area and population of the Province under registration have accordingly been reduced to this extent. There have also been some transfers of area and population from one district to another or from rural tracts to urban areas in the same district not affecting the total registration figures for the Province. Four village-tracts comprising 15 villages and an area of 112·30 square miles and 1,040 persons were transferred from the Yamèthin to the Meiktila District, and four villages with a population of 927 persons were transferred from the rural areas of the Prome District to the notified area of Shwedaung. Two new notified areas with town committees—one at Pyu in the Toungoo District and the other at Mawlamyainggyun in the Myaungmya District—were constituted with effect from the 1st October 1917.

The registered population was 9,824,390, of whom 8,721,061 occupied rural and 1,103,329 urban areas. Its natural increase by excess of registered births over deaths amounted to 107,535 or 1·09 per cent. of the population under registration, of which 65,792 (1·08 per cent.) accrued to Lower Burma and 41,743 (1·12 per cent.) to Upper Burma. As in previous years, the excess came wholly from rural areas, the towns showing a decrease by natural causes of 8,383 persons, 6,998 in Lower Burma and 1,385 in Upper Burma.

Number of births and deaths.

165. The number of registered births was 356,136, 23,909 more than in 1916 and 9,886 more than in 1915. One hundred and six male were registered for every 100 female births. The excess of births over deaths was for the whole registered population 10·95 per thousand. There was no appreciable excess of births over deaths in the Mandalay District (including the city) and in the Rangoon Town District the deaths exceeded the births by 12 per thousand of the population. The birth-rate was 36·25 per thousand for the whole of Burma, 35·58 for Lower Burma and 37·34 for Upper Burma. The corresponding mean figures for the previous five years were 33·80, 32·69 and 35·62. The rural birth-rate was 37·14 for the whole of Burma, 36·99 for Lower Burma, and 37·37 for Upper Burma. The urban birth-rate was 29·21 for the whole of Burma, 25·95 for Lower Burma and 37·06 for Upper Burma.

The lowest death-rate of all Indian provinces was recorded in Burma. The death-rate was 25·30 per thousand for the whole of Burma, 24·80 for Lower Burma and 26·13 for Upper Burma. The corresponding mean figures for the

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previous five years were 25·62, 23·93 and 28·42. The rural death-rate was 23·85 for the whole of Burma, 23·32 for Lower Burma and 24·67 for Upper Burma. The urban death-rate was 36·81 for the whole of Burma, 34·93 for Lower Burma and 41·34 for Upper Burma. Registered deaths in Burma amounted to 248,601 of which Lower Burma returned 151,380 and Upper Burma 97,221. The Provincial total exceeded that of 1916 by 12,367, and was less by 27,248 than that of 1915. The high rural death-rates returned by the districts of Sandoway, Tharrawaddy and Tavoy, were associated with high death-rates under the heading "Fevers"—in the last the death-rate from fever was by far the highest in the Province—those for Pegu, Myaungmya, Minbu and Yamèthin with a high death rate under the heading "All other causes"; and those for Mandalay, Shwebo and Kyauksè with high death-rates under both. Conspicuously low rural death-rates in the districts of Bassein (18·06), and Kyaukpyu (17·95), were associated with death-rates under "Fevers" differing little from the provincial mean (8·28) and the district of Myingyan, with a rural death-rate of 17·39, had a death-rate under "fevers" of only 3·89. The district of Ma-ubin, in spite of its mosquitoes, returned the lowest rural death-rate under fevers in the Province, 2·92.

The provincial rural rate of infantile mortality per thousand of registered births amounted to 204. The figures for 1916 and 1915 were 199 and 212 respectively. The rate for Lower Burma was 193·38 in 1917, 186·53 in 1916 and 200·26 in 1915 and for Upper Burma 221·57 in 1917, 217·76 in 1916 and 228·56 in 1915. The urban rate of infantile mortality for Lower Burma was 272·39 and for Upper Burma 348·41. The averages for the previous five years were 269·31, and 361·52 respectively. It is remarkable that no town in the Arakan or Tenasserim Divisions returned a high rate. The latter has now two societies for the prevention of infantile mortality.

One such society was formed at Thatôn in the Tenasserim Division during the year and began work in March 1917. The Rangoon Society has extended its ministration to all classes of the population, and now employs 8 qualified midwives and in the ten months ending in January 1918, 864 confinements were attended, or 216 more than in the same period of the previous year. In Mandalay 231 confinements were attended during the year by the two paid nurses and the lady visitor; in the previous year 263 were attended by three paid nurses. At Moulmein the two midwives attended 390. At Pyapôn and Thatôn no separate midwives were employed by the societies, but the work of the midwife working for the Municipality was supervised, and she was required to show better results. The number of cases admitted into the Sagaing Maternity Ward for confinement was 103 or 11 less than that of the previous year.

Causes of death.

166. The registered mortality for different causes in 1917 is compared below with the figures for 1916:—

Causes.	1917.	1916.
Cholera	1,914	1,673
Small-pox	559	707
Plague	6,524	7,702
Fevers	81,306	77,691
Dysentery and Diarrhœa	8,485	7,940
Respiratory Diseases	9,233	8,400
Suicide	200	204
Wounding or accident	1,893	1,807
Snakebite or attack by wild beasts ...	1,860	2,027
Rabies	61	27
All other causes	136,566	128,056
Total ...	248,601	236,234

The increase of 12,367 deaths over the total for 1916 is thus attributable chiefly to cholera, fevers, dysentery and diarrhœa and respiratory diseases. Small-pox and plague were less deadly. All the delta districts except Henzada suffered heavily from cholera which was apparently spread by pilgrims returning from a monk's funeral at Pantanaw in the Ma-ubin District where a local outbreak had occurred. The Irrawaddy Division returned 1,214 deaths from cholera out of

the total of 1,886 for Lower Burma. The rural parts of Burma returned 1,409 deaths from cholera and the urban areas 505. The Amherst and Thatôn Districts and Nyaunglebin Town in the Pegu District also suffered heavily from cholera during the year.

Deaths from small-pox in Lower Burma numbered 544. The Mergui District returned 236 deaths, Amherst 96, and Pyapôn 67. These were the only districts seriously affected.

Plague caused 4,802 deaths in urban and 1,722 in rural areas. Plague outbreaks were present and in some cases were assuming threatening proportions in December 1916, in the Sagaing, Magwe, Yamèthin, Kyauksè, Myingyan, Rangoon, Tharrawaddy, Prome, Bassein and Henzada Districts. No deaths were reported from Sagaing in January 1917, though there were 20 deaths in February and 10 in March. In the Kyauksè District there were only 5 deaths in January, and 10 in February. The epidemic in the Magwe, Myingyan and Yamèthin Districts died away in March with the increasing heat. In Rangoon the epidemic caused 130 deaths in February, but the usual rise in March or April did not occur; the second (and in this year the highest) summit of the mortality curve, was as usual reached in July during which 218 deaths took place, the total for the year being 1,288. In the Amherst District also the highest point of the curve was reached in July. Out of the 279 deaths recorded in that district 264 occurred in Moulmein Town. The Toungoo District returned 373 deaths, Bassein 614, Henzada 284, Pyapôn 239, Myaungmya 278, Prome 286 and Tharrawaddy 520. In the majority of the Lower Burma districts the epidemic had died down by July or August, but in Rangoon, Hanthawaddy, Tharrawaddy, Bassein and Thatôn deaths occurred in each of the months September, October, November and December.

Mandalay City suffered little from plague in the first half of the year. The disease assumed epidemic proportions at the end of September and increasing in virulence caused 552 deaths in December. The Minbu and Meiktila Districts became infected in certain areas in September and recorded many deaths in the subsequent three months. The other districts in Upper Burma were almost free of the disease after the first three months of the year except Myingyan which had a sudden and serious visitation in December in which it recorded 127 deaths. During the year inoculation was extensively practised in some Lower Burma towns. Bassein returned 9,036 inoculations, Prome 3,860 and Shwedaung 2,317. In Upper Burma where inoculation is more popular Mandalay headed the list with 9,469 inoculations, Sagaing followed with 5,157, Yenangyaung with 2,322 and Minbu with 1,973. In the rural areas of the Sagaing District 6,176 inoculations were performed, and 3,791 in various small towns of the Northern Shan States. In all there were 75,551 inoculations, 58,970 of which were performed in towns and 16,581 in rural areas. The number of rats destroyed in 1917 was 471,249, about 35,000 more than in the previous year, of which nearly six-sevenths were destroyed in the Rangoon Municipality.

The death-rate from fevers in 1917 for the registered areas of Burma, 8·28 per thousand of the population, was almost exactly the same as the average for the previous five years, but corresponding figures for Lower Burma show an increase of 0·67 and for Upper Burma a decrease of 1·04. In 1917, 81,306 deaths were attributed to fevers, or 3,615 more than in 1916. The excess occurred in nearly all the districts of Lower Burma but especially in those of Tavoy and Thatôn. There was however a definite improvement of 1·63 per thousand over the average of the preceding five years in the Prome District. In Upper Burma, the Thayetmyo, Shwebo and Minbu Districts showed a decrease of over 2·00 per thousand; the decrease in the Mandalay District was confined to rural areas only.

A malaria survey was begun on January 1st, 1917, in the Mandalay District. It was carried out by a Sub-Assistant Surgeon who had undergone a special course of study in the disease at Amritsar. He was equipped with a small travelling dispensary for the relief of fevers and minor ailments and in order to help him to establish friendly relations with the country-people among whom he had to work. In 1917, 281 villages were visited, and in the first three months of 1918, 56 additional villages. Villages were inspected and searching enquiries were made into the condition and numbers of children at various ages up

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to 15 years and into birth and death statistics, and in many places into the married history of a number of selected females in order to ascertain the number of births and the mortality among children at different ages and to determine whether there is any relation between endemicity of malaria in a given area and the rate of growth of its population. Out of the 23,949 children whose existence was admitted by the villagers, 17,642 or 74 per cent. were examined as to the state of the spleen. In 161 villages the splenic index varied from 50 to 100 per cent; in 33 villages from 25 to 50 per cent; and in 26 villages from 10 to 25 per cent. Relief was given to sufferers who could be induced to attend the travelling dispensary for treatment and medicine.

An effort was also made to inquire into the prevalence of malaria in the Tavoy District. A Sub-Assistant Surgeon was put on special duty for a few weeks at the commencement of the year and visited several mines, where he examined surface conditions and the degree of infection of the indigenous population and collected a few specimens of mosquitoes, but his services could not be retained longer owing to the demands of the war. The investigation proved that malaria is generally prevalent in the mining areas and that the local conditions favour the breeding of anopheles mosquitoes.

Quinine.

167. Owing to the greatly enhanced price of quinine sulphate other alkaloids of quinine available at a cheaper rate were substituted for sale to the public through Treasury Officers and licensed vendors. Tablets of residual alkaloids, and to a smaller extent of cinchona febrifuge, were manufactured as substitutes for quinine sulphate at the Rangoon Central Jail and issued for sale during the latter half of 1917. The outturn of the Quinine Department of the Rangoon Central Jail for 1917 comprised 1,521,910 five-grain tablets of quinine sulphate and 1,823,600 one-grain tablets; 678,080 tablets each containing two grains of residual alkaloid and 1,400,800 tablets each containing half a grain; and 45,120 five-grain and 60,800 one-grain tablets of cinchona febrifuge. The total outturn thus fell short of that of the previous year, when over ten million tablets were manufactured, and all indents could not be supplied in full. The cost of manufacture amounted to Rs. 10,668 and of packing and despatch Rs. 472. A total of 18,122,000 grains of cinchona alkaloids including quinine sulphate was sold by Treasury Officers; in the previous year 39,218,400 grains of quinine sulphate had been sold. Free distribution on a small scale was carried out in 15 districts. Of the 458,400 grains thus distributed 169,600 grains were given out in the Putao District.

Emigration and Immigration.

168. The numbers of emigrants and immigrants during 1917 were 237,184 and 223,133, respectively. In the previous year the figures were 252,348 and 259,578, respectively. The decrease was most marked at Akyab where the arrivals fell from 17,340 to 7,184 and the departures from 43,126 to 12,415. Rangoon returned 206,789 immigrants and 216,910 emigrants (of whom 187,680 were for Indian Ports), figures which show considerable variation from those of 1916, namely 29,159 and 200,898 respectively. No arrivals or departures were reported from Kyaukpyu and Bassein and the figures for Moulmein and Mergui remained nearly normal.

Medical Relief.

Hospitals and dispensaries.

169. Three new institutions only were opened and eleven were closed during the year 1917. The statistics of the Contagious Diseases Hospital at Mandalay were shown separately in the returns for the first time this year. At the end of the year 274 hospitals and dispensaries were affording medical relief or 8 less than at the end of 1916.

Attendance and treatment.

170. The number of patients treated at the various hospitals and dispensaries amounted to 1,867,529, or 90,444 more than in 1916. Arranged according to order of prevalence, the principal diseases treated were:—

All diseases of the digestive system other than dyspepsia, diarrhœa, hepatic diseases dysentery, cholera, enteric, appendicitis and kala-azar.
Malaria.
Ulcers.
All diseases of the respiratory system except pneumonia and tubercle of the lungs.
Diseases of the skin other than ulcers.
Injuries (general and local).
Diseases of the eye.
Dyspepsia.
Diseases of the ear.
Rheumatic fever and Rheumatism.
Diseases of the nervous system.

Among epidemic diseases, cases of cholera, plague and small-pox treated totalled 347, 1,013 and 435; the numbers were 138, 642 and 863, respectively, in the previous year. The total number of deaths returned among in-door patients was 4,008 or 5·77 per cent. of the total treated; the percentage was 6·29 in the previous year. The daily average attendance among in-door and out-door patients rose again from 3,316 and 9,411 respectively in 1916 to 3,385 and 9,639 in the year of report. The percentage of numbers of the indigenous Burmese community treated has shown a slight but satisfactory increase from 55·1 in 1916 to 55·3 in 1917. The attendance of Burmese women and children continued to be very satisfactory and increased in the year of report. The death-rate per thousand among the patients operated on was 6·3 in 1917, or 1·6 more than in the previous year, the higher death-rate being ascribed to a large number of greatly debilitated patients having been operated on for cancer of the uterus. Three hundred and thirteen persons underwent a full course of anti-rabic treatment at the Burma Pasteur Institute, Rangoon, in 1917 and 248 in the twelve months ending on the 31st March 1918, in the cases of 74 per cent. of whom the dog was proved to be rabid. The "Discrimination Scheme," a scheme securing the benefit of European methods of medical relief to all and yet educating persons in prosperous circumstances to recognise that they have no claim to free medical relief at the cost of the State, continued to be worked satisfactorily in the hospitals at Rangoon, Mandalay and Maymyo.

General.

171. The total expenditure on Hospitals and Dispensaries rose from Rs. 18,72,930 in 1916 to Rs. 20,09,847 in the year of report, the increase of Rs. 1,36,917 occurring under all the heads of expenditure. There were no changes in the cadre of sanctioned appointments in the Medical Department except in the case of Sub-Assistant Surgeons, where a reduction of one in the cadre was effected. During the year of report, 1 officer of the Indian Medical Service, 2 Military Assistant Surgeons, 8 Civil Assistant Surgeons and 52 Sub-Assistant Surgeons were deputed to Military duty. The number of Sub-Assistant Surgeons on the rolls at the beginning and at the end of the year 1917 was 360 (including 3 temporary men) and 385 (including 7 temporary men), respectively, the sanctioned cadres being respectively 378 and 377. Eight Results-System Midwives passed their final qualifying examination in 1917 and 7 pupils are now being trained. The number of students taught in the Burma Government Medical School, Rangoon, rose from 100 to 108 of whom 53 were Burmese, 4 Chinese, 44 Indians and 7 Anglo-Indians. The female students numbered 7 as in the previous year. One remanded student passed on re-examination in October 1917, and 16 students were declared to have passed in July 1918. All the new pupils admitted in the year of report possessed the requisite educational qualifications. The Hon'ble Mr. Lim Chin Tsong and Messrs. Hurry Krishna Pillai and S. R. Reddiar gave sums of Rs. 1,000 each towards the creation of three funds for the award of gold medals and prizes to be called after the donors.

Lunatic Asylums.

172. The Rangoon and Minbu Lunatic Asylums accommodated 786 lunatics on the last day of the year, or 80 more than on that of the previous year, and the

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daily average population rose from 678·53 in 1916 to 752·37 in the year of report. The percentage of deaths to the daily average strength of the two asylums rose from 6·48 in 1916 to 6·78 in 1917. The expenditure on these asylums amounted in 1917 to Rs. 1,99,740 or Rs. 51,802 more than in 1916. In Rangoon, the average cost of diet per head fell from Rs. 72 in 1916 to Rs. 66 in the year of report, and the average cost per head of average population also declined from Rs. 174 n 1916 to Rs. 171 in 1917. In Minbu, the average cost of diet and cost per head of average strength increased from Rs. 50 and Rs. 109, respectively, in 1916 to Rs. 53 and Rs. 116 in 1917. The manufacture department yielded a net profit of Rs. 24,207 or Rs. 7,882 more than in the previous year.

The accommodation for lunatics in the Province has become insufficient. Plan and estimates for a new Asylum near Rangoon were prepared, but the high estimated cost of Rs. 35 lakhs renders its construction at present impossible. A committee is now considering the question of constructing the new Asylum at a more moderate cost and inquiries are being made as to whether the Kindat Jail, relinquished by the Prison Department, is suitable as a temporary Asylum.

Sanitation.

Principal works and expenditure.

173. No meeting of a Divisional Sanitary Board was held in 1917. At Yamèthin, Pyawbwè and Mawlaik experimental infiltration wells were sunk. In the first-named place potable water was found, but the pumping tests were not completed. The yield from the Pyawbwè well was not definitely ascertained, but the pumping carried out at Mawlaik during the dry season proved the well to be successful. At Kyauksè a tube well was sunk for about 100 feet in clay which gave no promise of affording a sufficient yield for the Town supply, and another site had to be selected.

At Myingyan, Nattalin and Taungdwingyi tube wells were sunk and proved successful, but the distribution schemes were delayed by difficulty in obtaining pipes. At Pegu the reservoir was completed and the work of constructing the delivery main was in progress. The laying of distribution mains was completed in the Ma-ubin Municipality, and the water-supply became available for public use.

The expenditure on civil sanitary works incurred by Municipal and local bodies fell from over Rs. 58·5 lakhs to about Rs. 49 lakhs, of which over Rs. 15 lakhs were spent on water-supply, Rs. 6·8 lakhs on drainage, over Rs. 16 lakhs on conservancy, and Rs. 11·25 lakhs on other sanitary works. The prohibitive cost of materials of all kinds and the difficulty of obtaining them doubtless induced local bodies to postpone their sanitary schemes.

Vaccination.

Establishment.

174. The vaccination establishment during the year comprised 26 Sub-Assistant Surgeons (supervising officers), 38 Burmese and Indian Superintendents of Vaccination, 3 Head Vaccinators and 308 vaccinators and showed an increase of two Indian Sub-Assistant Surgeons and nine vaccinators. Three Sub-Assistant Surgeons were given additional allowances for supervising vaccination work in the Municipalities of Wakèma, Toungoo and Myingyan and the allowance given to a Sub-Assistant Surgeon in Maymyo was discontinued. One permanent vaccinator was added to the establishment of the Akyab Municipality; three temporary vaccinators were employed in the town of Mergui and five in the district; and one was employed for six months in the Salween District. A vaccinator still undergoing training at Putao was excluded from the returns of the year of report, Seven district vaccinators—two from the establishment of the Amherst District and one each from the establishments of the Kyaukpyu, Katha, Ma-ubin, Myingyan and Myaungmya Districts—were removed or dismissed during the year. One Burmese Superintendent of Vaccination in the Henzada District (since removed) was under suspension at the close of the year. One Shan Superintendent of Vaccination on the Taunggyi establishment was suspended for six months and one head vaccinator was removed from the service.

Number of operations.

175. In all 519,553 persons were vaccinated during the year 1917-18, or 57,383 less than in the preceding year. Of these, Special Staffs vaccinated 490,245 persons and private agencies 1,029, while 2,786 persons were vaccinated in various hospitals and dispensaries, and 25,493 persons in jails.

The total number of operations performed by Special Staffs and "Other Agencies," excluding those performed in dispensaries and jails, was 492,008, of which 429,417 were primary operations and 62,591 re-vaccinations. These figures show a decrease of 57,141 operations under all heads on the returns of the previous year, but there is a small, though satisfactory, increase in primary operations of 9,060, the deficiency being made up by a decrease of 65,201 re-vaccinations, which was due to the decrease in the prevalence of small-pox in the Province. The number of successful primary operations performed was * 400,871, or 10,254 more than in the previous year. These operations form the bulk of the work of the Department and are a measure of its progress. Successful re-vaccinations numbered 25,686.

The districts showing a considerable increase of successful primary operations over the previous year were Kyaukpyu (1,527), Pegu (1,408), Bassein (2,667), Henzada (3,602), Mergui (1,877), Thatôn (3,077), Ma-ubin (862), Putao (839), Sagaing (818), Thayetmyo (1,538) and Minbu (812). Notable decreases in primary successful operations were returned by those of Akyab (2,994), Rangoon (918), Hanthawaddy (827), Prome (1,462), Lower Chindwin (1,119), Pakôkku (1,422), Meiktila (1,236), Myingyan (1,034) and the Southern Shan States (3,729). Both the Irrawaddy and Tenasserim Divisions did well, the former showing an increase of 7,332 successful primary operations to which every district but one, Pyapôn, contributed, and the latter an increase of 3,588, to which the Thatôn District contributed 3,077, Mergui 1,877, and Salween 104—the other three districts, Amherst, Toungoo and Tavoy, showed decreases. The Arakan Division showed a decrease of 1,454 and the Pegu Division of 912 for which the Prome District is chiefly responsible. Upper Burma did not do very well, with the exceptions above mentioned of the Putao, Sagaing, Thayetmyo and Minbu Districts. The two last named districts swelled the aggregate of successful primary operations in the Magwe Division to 1,110 more than in the previous year, in spite of the large decrease in the Pakôkku District. The Meiktila Division showed a decrease of 1,448 operations, to which the Meiktila and Myingyan Districts chiefly contributed. The decrease in the Sagaing Division was 503, and was chiefly due to the decrease in the Lower Chindwin District. That in the Southern Shan States was due partly to the unsatisfactory organization of the vaccination staff working from Taunggyi, and partly to the loss of a vaccinator in Loimwe Civil Station. Revised figures for the Northern Shan States for 1917-18 showed the total successful primary operations performed to be 10,928, or more than double the figure of the previous year.

The percentage of operations in which success was obtained in 1917-18 was 97·35 for primary, and 49·74 for re-vaccinations. The figures for the previous year were 97·64 and 59·32, respectively. The number of persons protected by vaccination per 1,000 of population fell from 36·28 in 1916-17 to 35·12 in the year of report.

The total number of primary operations performed in towns in 1917-18 amounted to 34,330 of which 31,633 were returned as successful, so that the percentage of successes was 92. The figures for the previous year were 37,861, 34,468, and 91 respectively. The lowest percentage in any town, namely 65·49, was obtained at Bhamo, but Wakèma only obtained 81·20, and each of Nyaunglebin, Thatôn and Mergui between 82 and 83.

During the year 1917-18 the Vaccination Act of 1880 was extended to the town of Shwedaung in the Prome District, and so the number of towns in which vaccination is compulsory rose from 57 to 58. In these 58 towns 21,690 living children of not more than one year of age were recorded and 20,828 of them were successfully vaccinated. It was observed as in previous years, that in many towns the number of infants vaccinated under 12 months of age was small and the

* Revised figure.

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explanations offered were not very satisfactory. Special praise was given for the excellent results obtained in the towns of Mandalay, Thôngwa, Nyaunglebin, Pyapôn, Moulmein, Tavoy, Pakôkku, Yamèthin, Pyinmana and Pyawbwè. Others with a highly creditable record were Akyab, Pegu, Myanaung, Wakèma, Mergui, Yenangyaung, Myingyan, Nyaung-u and Thayetmyo. The following towns showed a marked deficit in infant vaccination amounting to over 10 per cent. of estimated survivors of births: Rangoon, Paungdè, Bassein, Yandoon, Danubyu, Letpadan, Gyobingauk, Shwegyin and Shwebo; over 20 per cent.: Prome, Thatôn, Kyaikto, Kawkareik, Allanmyo and Minbu; over 30 per cent.: Kyaukpyu, Taungdwingyi, Magwe, Syriam, Ngathainggyaung, Henzada and Kyangin; over 40 per cent.: Sandoway, Myaungmya, Maymyo and Sagaing; Toungoo returned a deficit of over 60 per cent., and Katha of over 80 per cent.

The total number of operations performed in dispensaries was 2,786, or 1,291 less than in the previous year. There was a small increase of 85 in re-vaccinations, but a decrease of 1,376 in primary operations. Of the 25,493 operations performed in jails 3,319 were primary, and 22,174 re-vaccinations, and of the former 2,420 and of the latter 12,374 were successful.

Under the provisions of section 9 of the Burma Vaccination Law Amendment Act of 1909, 11,330 persons arriving at the Port of Rangoon to work as labourers were vaccinated during the year by the Municipal Vaccination Staff under the supervision of the Port Health Officer. Of 430,206 persons primarily vaccinated 54,226, or 12·60 per cent., were verified by Civil Surgeons and Health Officers and 230,374, or 53·55 per cent., by Burmese Superintendents and Sub-Assistant Surgeons. The return of work under this head was on the whole satisfactory and the percentages were much the same as those of the previous year. In addition the former verified 4,736 re-vaccinations, and the latter 29,706.

Expenditure.

176. The total expenditure during the year amounted to Rs. 2,21,214 or Rs. 6,458 less than in the previous year. Rs. 1,44,844 were spent on pay of the establishment, Rs. 62,368 on travelling allowance and Rs. 14,002 on contingencies. The average cost per successful case was 8 annas 5 pies, or 2 pies more than in the previous year. The districts which returned the lowest averages were Sagaing (Re. 0-4-1), Tharrawaddy (Re. 0-4-4), and Bassein (Re. 0-4-6). Exceptionally high averages were returned by the Hill District of Arakan (Rs. 2-2-1), the Ruby Mines District (Rs. 1-14-4), and the Myitkyina District (Re. 1-0-1).

Vaccine Depôt, Meiktila.

177. Four hundred and thirty-five calves were inoculated with vaccine, or 77 more than in the preceding year. These yielded 340 ounces of lymph, an average of 342·2 grains per calf, 23·3 grains less than the average of 1916-17. The number of doses issued to District Superintendents and others was 666,793, or 59,631 less than in the preceding year. The Rangoon Health Department received 3,200 grains and Loimwe Vaccine Depôt 160 grains of seed lymph. Military hospitals received 2,530 and the Têngyüeh Consulate 4,380 doses. Ninety-six decimal nine per cent. of successes was reported in 335,130 primary operations and 50·25 per cent. in 48,383 re-vaccinations. The cost of the maintenance of the depôt, about Rs. 18,000, showed an increase over that of 1916-17. Three Burmese Superintendents of Vaccination underwent a course of training but failed to pass the final examination and 35 vaccinators were trained, all of whom qualified.

CHAPTER VII.

INSTRUCTION.

REFERENCES—

Report on Public Instruction in Burma for the year 1917-18.
Statistical Abstract for British India, Volumes IV and V.

General System of Public Instruction.

The following paragraphs 178 to 205, inclusive, are inserted as most * of them have been slightly altered from paragraphs 253 to 280 of the Report on the Administration of Burma for the year 1911-12 :—

General organization.

178. Elementary education has long been widely deffused in Burma: it is indeed bound up with the religious traditions and practice of the country. A Buddhist monastery is to be found in every village of any importance and often there are several in one village. Each monastery is a school actually or potentially. Custom has always demanded that every Burmese Buddhist male shall pass some portion of his youth in a religious seminary. In such institutions the monks have always taught the arts of reading and writing and in some schools an indigenous system of elementary arithmetic. The teaching is not confined to pupils who for a shorter or longer time 'assume the robe.' The village children may attend as ordinary pupils, but their attendance is irregular and by no means obligatory. It cannot be denied that at the present time a large number of children receive no regular instruction even of an elementary kind. Elementary education however has never been restricted to the monastic schools. Before the advent of the British, 'lay' schools kept by respectable old men or women supplemented the monastic school system. The British Government has steadfastly endeavoured to graft on to the lay and monastic stems of indigenous education those Western educational methods which modern civilization demands. The first definite step in this direction was taken by Sir A. Phayre who in 1864-65 proposed a scheme the main features of which were :—

(i) To use the Vernacular (Burmese) as the medium of instruction and thereby to diffuse Primary or Elementary education among the masses.

(ii) Under Elementary or Primary Instruction to include not merely Reading and Writing but also Elementary Arithmetic, Land Measuring, Geography, and eventually Astronomy and the outlines of Ancient History as known to Europe.

(iii) To utilize monastic and lay schools for this purpose.

(iv) In order to induce *póngyis* (monks) to teach such subjects (*a*) to furnish them with books in Burmese, (*b*) to supply qualified Burmese teachers to superintend the studies occasionally.

(v) To appoint a Director with four Burmese teachers (for the above purpose) at Rs. 30 per month.

Since that time Government through the Educational Department, the foundation of which in its present shape was an outcome of Sir A. Phayre's schemes, has sought to adapt its method of vernacular education to the monastic system and to induce the monks to accept as much at least of Western knowledge and modern principles of education as is not incompatible with Buddhist doctrines and rules of life. At the same time Government has always striven to promote the efficiency of lay vernacular schools. The result at the present time is that although four-fifths of the monastic schools still remain aloof from the Departmental system the figures for attendance at public institutions (*i.e.*, those recognized by Government) exceed those for private schools. Since its organization the Education Department has taken cognizance of Anglo-Vernacular aswell as of Vernacular education. The growth of Departmental control over English and

* Nos. 179 to 181, 183 to 185, 187, 190 to 194, 196, 199 and 201 to 204, all inclusive.

CHAP. VII.—INSTRUCTION.

higher education is no new thing. From 1862 grants have been given for Anglo-Vernacular schools. The duties of the Director of Public Instruction, first appointed in 1866, comprised not merely the fostering of vernacular education but the active supervision of English education. A few Anglo-Vernacular schools are carried on apart from the Government system, but the large majority is wholly under the supervision of the Education Department. The severance of European from Anglo-Vernacular education is a comparatively recent feature dating from 1906, when a separate Code for European schools in Burma was sanctioned.

Education Department.

179. The Education Department is under the control of the Director of Public Instruction and consists of an Imperial, a Provincial and a Subordinate Service. Members of the Imperial Branch or Indian Educational Service are graduates in honours of British Universities and are ordinarily appointed in England by the Secretary of State. This service includes the Director of Public Instruction, six Inspectors of Schools, the Principal and nine Professors of the Government College and three Principals of Government High Schools. The Provincial Service includes three Inspectors of Schools (one temporary), six Assistant Inspectors, one Assistant Inspectress, two Professors and two Lecturers at the Government College, three Headmasters of Government High Schools, the Technical Instructor of the Government School of Engineering, the Superintendent of the Reformatory School, Insein, and the Editor of Vernacular Text Books. Sanction for two Inspectors, an Inspectress, a Professor and a High School Principal in the Indian Educational Service and for an Assistant Inspector of Pâli in the Provincial Educational Service has been granted, but the posts have not been filled. The Provincial Service is recruited largely from Burmans, with three Europeans, four Anglo-Indians and three Indians. The Subordinate Service comprises nearly a thousand appointments. In it are included teachers in Government schools, Deputy Inspectors, Sub-Inspectors and clerks in offices under the Education Department. This service consists mainly of natives of Burma and its numbers increase steadily with the spread of education and the demand for additional teachers, clerks, and subordinate inspecting officers.

Educational officers under Government not included in any of the three Services are the Principals of the Government School for Sons of the Shan Chiefs at Taunggyi and the Government High School for European Boys at Maymyo, both Europeans and graduates of Oxford or Cambridge, the Head Master of the Maymyo School and the Head Mistress of the Government Normal School, Rangoon. Two officers of the Public Works Department are lent to the Education Department as Principal and Head Master respectively of the Government School of Engineering, Insein.

Divisional Boards were constituted at the end of the year 1916-17 for the administration and supervision of Vernacular education under the general control of the Education Department. Each Divisional Board includes the Commissioner and all the Deputy Commissioners of the Division, the Inspector and the Assistant Inspector of Schools, a representative of each Municipality or Town Committee and seven nominated members. Rangoon Town has its own School Board under the President of the Municipality as Chairman, with representatives of the various communities and missions engaged in educational work, the Education Department and the Municipality.

The Educational Syndicate conducts tests for teachers in the theory of education and certain other examinations and advises on educational matters. The members include the Chief Judge of the Chief Court and the Director of Public Instruction *ex-officio* and over 30 others, both official and non-official, nominated by Government.

Government control.

180. The sphere of direct Government control has been considerably extended. Government institutions now include—

1 Arts College.	1 High School for Europeans.
1 Law School.	1 High School for the Sons of Shan Chiefs.
1 Reformatory School.	5 Normal Schools.
1 School of Engineering.	18 Anglo-Vernacular High Schools.
1 Apprentice School.	19 Anglo-Vernacular Middle Schools.

The transfer of all Municipal and District Cess Anglo-Vernacular schools to Government and of Government Vernacular schools to the Divisional Boards was partly completed during the year 1917-18. Government retains control, however, of the Vernacular Practising schools attached to the Government Normal schools in Mandalay, Toungoo, Moulmein and Akyab. Twenty-nine Secondary and seventeen Primary Government Vernacular schools were transferred to local control. Of the 37 Anglo-Vernacular schools now managed by Government more than half were originally Municipal or District Cess schools.

The great bulk of the schools, European, Anglo-Vernacular and Vernacular, are managed by private agency, missions, societies or individuals. Government inspects and supervises and pays grants to schools willing to comply with the conditions of registration laid down in the Education Code. Six Government High Schools that were formerly affiliated to the Calcutta University, until they ceased to prepare pupils for the Matriculation examination, and had 'Governing Bodies' have now Advisory Committees nominated by the Director of Public Instruction with the approval of the Commissioner. With effect from the 1st of April, 1918, the preparation of pupils for the Matriculation Examination was discontinued.

Schools and Colleges.

181. The Burma University will, it is hoped, be constituted in the near future. At present there are two colleges in Rangoon affiliated to the Calcutta University. In the Government College are 575 students and in the Baptist College 110.

Pupils in Anglo-Vernacular High Schools are taught up to the standard of the High School Final Examination and those in European schools up to the European High School Examination, both held by the Department. In Vernacular High Schools the highest standard is the ninth; both the eighth and the ninth standards are examined by the Department. In all classes of schools admission to the High School is controlled by a Middle School or Seventh Standard examination held by the Department.

The total number of registered institutions is 9,501 with 383,312 pupils. These include 33 European schools, 194 Anglo-Vernacular schools and 9,272 Vernacular schools. High schools number 94, Middle schools 1,298. The Vernacular schools include 3,397 monastic schools, the great majority of which do not proceed beyond the primary stage. These schools receive aid in the form of Salary Grants paid to lay teachers and Results or Maintenance Grants paid to the *Kappiyadaka* (lay brothers of monasteries). A few of the more enlightened monks have qualified themselves by the standards, literary and professional, prescribed by the Department for teachers' certificates. Their schools, managed on the same lines as the best lay schools, are among the most efficient in the Province. Outside departmental supervision are more than 18,000 private schools with over 200,000 pupils. Of these some half dozen are Anglo-Vernacular; the remainder are with few exceptions monastic schools teaching Burmese reading and writing with a native system of arithmetic. The inspecting officers of the Department visit as many of these schools as possible and endeavour to induce the managers to accept the Government system and courses

Teachers are trained in twelve normal schools. There are also nineteen Elementary Training Classes which prepare students for work as Vernacular Primary teachers. Certain selected certificated teachers are also permitted to prepare other teachers and managers as private students for the theoretical tests held by the Educational Syndicate.

Education Codes.

182. The rules of Government in the Education Department are contained in the Burma Education Code and the Code for European Schools in Burma. The latter is based on the Code for European Schools, in India, but includes modifications to suit the special circumstances of Burma. Anglo-Vernacular and Vernacular schools are administered under the Burma Education Code; European Schools only under the Code for European Schools.

Administration.

183. The authorities responsible with the officers of the Education Department for the Educational administration of the Province are:—

(*a*) Officers of the Civil Administration from Commissioners to Myoôks (Township Officers);

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(*b*) Divisional School Boards ;

(*c*) Municipal and Town Committees.

In Lower Burma the cost of Vernacular education is met from District Cess Funds and Municipal or Town Funds. Such contributions should not ordinarily exceed 20 per cent. or fall below 15 per cent. of the annual income of the District Cess Fund, and should not exceed 5 per cent. of the Municipal or Town Fund. Contributions from District Cess Funds or Provincial Funds are occasionally made to poor Municipalities, and Provincial Funds sometimes supplement the income of the poorer districts. In Upper Burma, outside Mandalay and Maymyo, the cost of Vernacular education is borne by Provincial Funds supplemented by contributions up to 5 per cent. of their income from Municipal and Town Committees. Anglo-Vernacular, European and Normal schools are maintained from Provincial Funds

The annual estimates of Educational expenditure from District and Municipal Funds in Lower Burma are prepared by the Inspector of Schools concerned in consultation with the local authorities. The draft is submitted to the Divisional Board for approval and transmitted to the Director of Public Instruction, who scrutinizes it and, if he approves it, sends it for final sanction to the Commissioner of the Division or the President of the Municipal Committee as the case may be. In Upper Burma the budget estimate prepared by the Inspector of Schools is passed by the Divisional Board and submitted for approval to the Director of Public Instruction, who includes it in the consolidated Provincial Budget estimates. The budgets of the Rangoon and Mandalay Municipalities are exceptional in that they are finally sanctioned not by the President but by the Local Government.

Inspection.

184. There are seven territorial inspection circles, Mandalay, Meiktila, Pegu, Tenasserim, Irrawaddy, Arakan and Rangoon under seven Inspectors. Another Inspector is in charge of European and Normal schools. Under them are six Assistant Inspectors and one Assistant Inspectress, 75 Deputy Inspectors and 39 Sub-Inspectors. The creation of a separate circle for Rangoon was sanctioned with effect from June 1918. The early addition of two Deputy Inspectors and 30 Sub-Inspectors to the cadre is contemplated.

Distribution of work.

185. For the supervision of vernacular primary education the circles of inspection are divided into sub-circles, which generally correspond with a civil district and are placed each in charge of a Deputy Inspector of Schools. One district, Henzada, has three Deputy Inspectors for Burmese schools and twenty-one others have each two Burmese Deputy Inspectors, owing to their size and population. There are also nine Deputy Inspectors of Karen schools, three of Mahomedan schools, one of Tamil schools, and two for Manual Training and Drawing.

Classification of institutions.

186. Educational Institutions are classified as Colleges or Schools, public or private. A public institution is one (*a*) in which the courses conform to standards prescribed by the Local Government or by the Calcutta University and (*b*) which is either managed or inspected by the Education Department or presents pupils at the public examinations held by the Education Department or by the Calcutta University. A private institution is one which does not come within the above definition. A public institution under the management of a private person or association is classed as a public institution under private management.

Colleges.

187. The two colleges in Rangoon prepare pupils who have passed the Matriculation or the Anglo-Vernacular High School Final or the European High School Examination for the I.A., I.Sc., B.A., and B.Sc. courses of the Calcutta University. The Government College is affiliated up to the B.A., with Honours in English, Mathematics and Pâli and up to the B.Sc., with Honours in Mathematics. The Baptist College is affiliated up to the B.A.,

with Honours in English and Philosophy. The latter college is managed by the American Baptist Mission and aided by Government.

Classification of Schools.

188. Schools are classified as Secondary or Primary according to the stage of instruction reached. Secondary schools may be either 'Middle' or 'High.' A High School ordinarily includes Primary and Middle Departments as well as a High Department; a Middle School ordinarily includes not only a Middle but also a Primary Department. Secondary and Primary schools may be European, Anglo-Vernacular or Vernacular; European and Anglo-Vernacular schools are sometimes classed together as 'English' schools.

Classification of Vernacular Schools.

189. Vernacular schools recognized by the Education Department are classified as 'A' or 'B' schools. 'A' schools conform to the vernacular standards and courses prescribed by the Department. Managers of 'B' schools are at liberty to arrange their own courses subject to the general supervision of the Department. Vernacular schools not recognized by the Education Department are usually schools conducted by Indians or Burmans on purely indigenous lines in accordance with the traditions of the country. Vernacular schools, whether recognized or unrecognized, may be monastic or lay schools according as they are managed by *pôngyis* (monks) or laymen. At lay vernacular schools girls or boys or both are received.

Special Schools.

190. Special schools are of six kinds:—Normal, Surveying, Engineering, Medical, Veterinary and Industrial.

Normal schools are institutions in which candidates for teacherships are trained: they are either Government or Aided. Survey schools are supported by Government and are under the supervision of the Commissioner of Settlements and Land Records. In them candidates for surveyorships in the Land Records Department, as well as for posts under other authorities, receive training. Survey schools are maintained from Provincial Funds. There is a Government School of Engineering at Insein maintained from Provincial Funds for the purpose of (*a*) training candidates in the Upper and Lower Subordinate branches of the Public Works Department, (*b*) training Draughtsmen, (*c*) training as Engineers and Mechanicians persons who do not seek appointment in the Public Works Department. The courses in the Engineering School were last revised in 1910. The School at present comprises a Technical High School course which extends over three years, an Engineering course which extends over two years, a Draughtsman's course which extends over one year, and Preliminary classes the courses in which extend over one year and are intended for students who wish to be admitted to the Engineering course or the Draughtsman's course without going through the Technical High School course. The school is under the control of the Director of Public Instruction who is advised by a Visiting Committee. The Government Medical School in Rangoon is under the control of the Inspector-General of Civil Hospitals, Burma. The two Veterinary Schools at Insein and Taunggyi are under the Superintendent of the Veterinary Department.

Reformatory and Technical Schools.

191. The Government Reformatory School at Insein is under the control of the Director of Public Instruction as Inspector-General and of a Visiting Committee. The institution is also visited by the Deputy Inspector and the Inspector of Schools. Literary instruction is given up to the Vernacular fourth standard, and technical instruction in carpentry, shoe-making, cane-work and tinsmith's work. Revised regulations intended to make the school less like a juvenile jail and more like a Borstal institution were sanctioned in 1915. Industrial training is carried on also at the Engineering School and in the Apprentices' School at the Insein Railway Workshops as well as in five aided institutions. Six Commercial Schools, in which shorthand, typewriting and commercial correspondence are taught, are recognized but not aided by Government. These are all in Rangoon.

Manual training.

192. Manual training or Slöjd is taught in nine English schools, six normal schools and 26 vernacular schools. In 25 of the vernacular schools the teacher

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is paid and materials are provided by Government. The only European school that takes up the subject is St. Paul's Institute, Rangoon.

Standards of instruction.

193. There are at present ten standards of instruction, from the Infant to the Ninth for Vernacular and from the First to the Tenth for Anglo-Vernacular schools. In European schools there are eleven standards, from the Infant to the Tenth. In Vernacular schools the first three standards constitute the Lower Primary stage, the next two the Upper Primary, the next three the Middle, and the last two the High stage. In Anglo-Vernacular schools the Primary Department includes Standards I—IV; the Middle, Standards V—VII; and the High, Standards VIII—X. The same division is made in European schools except that in the Primary Department there is an Infant standard in addition. The Tenth Standard Anglo-Vernacular and European is the High School Final class. Pupils who pass either the Anglo-Vernacular or European High Schol examination in certain specified subjects are permitted by the Calcutta University to enter an Arts College.

Vernacular and Anglo-Vernacular Schools.

194. Vernacular schools are those in which English is not taught; Anglo-Vernacular are those in which instruction in English forms part of the regular course. In European schools English is the vernacular and the medium of instruction.

Teaching of English.

195. In the Anglo-Vernacular curriculum in force under the Burma Education Code English is begun to be studied in the lowest standard (Standard I). From 1908 up to 1912 reading and writing English were begun in Standard IV, the methods of teaching the language in Standards I, II and III being oral. Since April, 1912, English reading and writing may be taught in Standard III, the conversational and oral methods previously prescribed being however retained. In the Middle stage teachers begin to use English as the medium of instruction in certain subjects. In the High stage English becomes as far as possible the medium of instruction in all subjects. In all stages in Anglo-Vernacular schools pupils read and study their own vernacular.

Management.

196. An institution is considered to be under public management when it is under the direct management of Government or of officers or Committees acting on behalf of Government or of Local Committees constituted by law. The staffs of Government institutions are appointed by Government or by the Department concerned acting under the sanction of Government. The pay of the staffs is borne by Government and teachers serving on the staffs are eligible for pension. In schools under private management managers appoint their own staffs subject to the approval of the Department. Recognized schools under private management are with very few exceptions aided.

System of aid.

197. There are two systems of aid, one under the grant-in-aid rules for Anglo-Vernacular and European schools and one under the grant-in-aid rules for Vernacular schools. Before a school is eligible for grants it has to be registered under the rules for registration. Educational grants-in-aid funds are administered under the control of the Department of Public Instruction and the grants payable are subject to Budget limits. The grants in-aid obtainable are as follows:—

(i) "Ordinary Grants" calculated on the difference between the income and expenditure of an institution.

(ii) "Boarding Grants" for pupils supplied with board and lodging on the school premises.

(iii) "Special Grants" to supplement private expenditure on buildings, land, school furniture and equipment.

(iv) "Salary Grants" to certificated teachers.

(v) "Fixed Grants" to institutions of recognized efficiency and permanent character.

(vi) "Normal School Grants."

(vii) " Results and other Grants " for technical subjects in—

(*a*) Ordinary Schools ;

(*b*) Technical Schools or Departments.

(viii) " Extra Grants."

In no case is the total allowed in any year to any institution under the grants specified against (i), (iv) and (vii) permitted to exceed the sum contributed from other sources (such as fees, endowments, or grants from missionary bodies) to the direct expenditure of the institution in the previous year.

Vernacular Schools.

198. Vernacular schools are maintained by Burmans, Karens, Tamils, Telugus, Chins, Kachins, Mahomedans, Talaings, Taungthus, Manipurians, Palaungs, Danus, Shans, Inthas and Chinese, and by Missionary Societies. A school manager can apply at any time to the Deputy Inspector to have a school registered under class ' A ' provided that at least four of the pupils are able to read and write their vernacular as judged by Standard II. The school will be retained on the Register only if it passes pupils by recognized standards within a year of registration. In the case of ' B ' schools the following conditions are imposed :—

(i) that they serve some purpose of useful secular education and give instruction in Reading, Writing and Arithmetic ;

(ii) that they keep an Attendance Register ;

(iii) that they are at all times open to Government inspection.

Vernacular schools of class ' A ' at present receive aid in the form of—

(i) Results or Maintenance grants ;

(ii) Grants for buildings ;

(iii) Grants for equipment and books ;

(iv) Salary grants ;

(v) Grants for pupil teachers ;

(vi) Boarding grants ;

(vii) Grants for optional and technical subjects.

In order to be eligible for a grant-in-aid, schools of class ' A ' must ordinarily be in session all the year round, taking the recognized holidays and vacations, and must maintain an average daily attendance of not less than 12 pupils.

Schools of class ' B ' are eligible for grants as follows :—

(i) A grant of Rs. 2 a year for each pupil in average daily attendance up to a maximum of Rs. 150 ;

(ii) A grant of Rs. 2 for each month in the year for which the attendance is certified by the Inspecting Officer to be properly recorded ;

(iii) Once in three years an equipment grant of Rs. 75.

Training Institutions.

199. There are five Government and three aided normal schools for men and four aided normal schools for women. In these schools students receive instruction in the theory of education and practical training. Women students for the primary grade vernacular certificate and all students for the secondary grade vernacular certificate take also a course in ordinary school subjects. Others study certain literary or technical subjects and undertake courses of private reading intended to improve their general education. Courses are Anglo-Vernacular or Vernacular leading up to four grades of certificate, Kindergarten, Primary, Middle and High. Certificates are awarded by the Director of Public Instruction to applicants who have passed the Theoretical Test held by the Educational Syndicate, the prescribed literary standards and a practical test held by an Inspector. In order to appear for the Anglo-Vernacular Theoretical Tests candidates must ordinarily have been trained at a normal school, but untrained teachers who have taught satisfactorily for two years in a recognized school may under certain conditions be admitted to the examination for the Secondary and Higher grade. Vernacular teachers and Managers who have served satisfactorily for two years may appear for the examination by any grade without training. The duration of the course is one or two years according to the certificate sought. The minimum qualification for admission to the Anglo-Vernacular course is the eighth Anglo-Vernacular or the Seventh European standard. For vernacular women

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students the minimum qualification is the sixth and for men the seventh vernacular standard. European and Anglo-Indian candidates who pass the necessary examinations for an Anglo-Vernacular certificate but have not qualified in the vernacular receive a European teacher's certificate.

Education of backward tribes.

200. The education of backward tribes is attended to by the Education Department. Double the grants made under the ordinary scales laid down for vernacular schools are payable upon pupils of specific backward races in such localities as the Director of Public Instruction may determine. Extra grants are payable on Anglo-vernacular pupils of specific backward races in such localities as the Local Government may from time to time determine.

Aid to Europeans and Anglo-Indians.

201. The following special forms of aid are open to the children of Europeans and Anglo-Indians in Burma :—

(*a*) A fixed number of monthly orphan stipends, tenable for three years for the education of orphans at approved institutions.

(*b*) A fixed number of apprentice stipends tenable for three years for the training of poor boys at approved workshops.

Stipends are awarded annually by Boards at Rangoon, Moulmein, Akyab and Mandalay. No stipends are paid except on account of children who are actually under instruction. The stipends are tenable subject to good conduct and progress.

(*c*) Extra grants payable upon European and Anglo-Indian pupils attending European schools; these grants are in addition to 'fixed' or 'ordinary' grants.

(*d*) Scholarships reserved for Europeans and Anglo-Indians under the Code for European schools and at the Government Engineering School, Insein.

Examination in Pâli.

202. An examination in Pâli is held annually in Mandalay, Rangoon, Moulmein, Toungoo, Pyinmana, Myingyan, Pegu, Akyab, Bassein and Prome to which monks, laymen and nuns are admitted. This is known as the *Patamabyan*. It is divided into three grades: *Patamangè*, *Patamalat* and *Patamagyi*. The candidate who heads the list in the last grade is known as "*The Patamagyaw*" of the year. His certificate is specially presented by the Lieutenant-Governor. He is exempted for life from *thathameda* tax in Upper Burma or capitation tax in Lower Burma, and if he is a *pôngyi* (monk) his parents are exempted. Rewards and certificates are given for passes in each grade. A candidate whose rules of life forbid the acceptance of money receives a present of robes. The examination is very popular and has done much to enlist the sympathies of the monks in educational matters.

Examinations.

203. Examinations of pupils in colleges or schools are of two kinds, (*a*) University and (*b*) Provincial. The former consist of the I.A., I.Sc., B.A. and B.Sc. examinations of the Calcutta University. The latter are conducted by the Education Department and comprise in Anglo-Vernacular schools, the examination of Standard VII, the High School Final examination and the Middle English Scholarship test; in European schools the Seventh standard test, the Middle Scholarship examination, the High School and Scholarship examination; in Vernacular schools, the examination of all standards, and Primary and Middle scholarship tests. In Normal schools, examinations in the literary courses and practical tests are held by the department. At the Engineering School the examinations are held partly by the staff and partly by examiners appointed by the Director of Public Instruction. The Education Department also holds special tests for Drawing Teachers and Pupil Teachers and in Pâli and certain technical subjects. The Educational Syndicate with the assistance of the Education Department conducts examinations in the theory of education; in Languages and in Law (for advocates); and for certain minor Government appointments.

Scholarships and Prizes.

204. Government scholarships comprise 25 University Scholarships, 41 Middle English Scholarships tenable in Anglo-Vernacular High Schools, 8 Vernacular Middle Scholarships tenable in Vernacular High Schools, 102 Upper

Primary Vernacular Scholarships tenable in Vernacular Middle Schools, 40 Lower Primary Scholarships tenable in Upper Primary Vernacular Schools and 20 Bridge Scholarships for Vernacular students tenable in Anglo-Vernacular Schools. In addition to these there are 20 Middle School, 12 High School, 4 Collegiate and 2 Final Scholarships under the European Code tenable respectively by High School pupils, Junior College students, Senior College students and graduates. Four scholarships for Europeans and 24 other scholarships are tenable at the Government Engineering School, and one at the Engineering College, Sibpur. One Medical Scholarship for men is tenable at the Medical College, Calcutta, and three for women are tenable at the Lady Hardinge Medical College, Delhi. Twenty scholarships for candidates intending to become Sub-Assistant Surgeons are tenable at the Medical School, Rangoon. CHAP. VII.—INSTRUCTION.

Certain other scholarships are awarded by the Educational Syndicate, namely the Bigandet Medical scholarship, the St. Barbe scholarship (for women wishing to become midwives or sick-nurses), and the Gilbert scholarship (for an apprentice in a technical school or workshop). The late Maung Ohn Ghine founded a special scholarship for Buddhists at the Engineering School, Insein.

Special prizes include the Father D'Cruz silver medal awarded to the most successful student at the annual examination of the Survey Schools, the Bigandet Gold Medal for distinction at a University examination or in literary or scientific work ; a medal given by Maung Ohn Ghine for success at the Engineering School and awards of books known respectively as the Jardine, Coplestone, Hunter, the Governor of Renaung and the Garnet Man prizes. The last mentioned are given for English History and the others are for pupils who distinguish themselves in school or college examinations.

Text-Book Committee.

205. The Text-Book Committee is a standing body consisting of the Director of Public Instruction as *ex-officio* President and of a Committee of not more than twenty members, official and non-official, appointed by the Local Government. The Committee is divided into two Sub-Committees dealing with Vernacular and English books respectively. The duty of the Committee is to choose text-books for adoption in Anglo-Vernacular or Vernacular schools and to submit them for the orders of the Director of Public Instruction. Books approved are included in the Departmental list of text-books authorized for use in schools. The Committee has no concern with the text-books of schools under the Code of Regulations for European schools, unless such books are specially referred to the Committee for opinion by the Director. An Editor and Sub-Editor of Text-Books are maintained as part of the Education Department's staff, their duty being to prepare works for use in schools and to make any necessary translations.

Education.

General progress and educational measures.

206. Many important changes were carried out or sanctioned during the year. The transfer of Municipal schools to Government was completed on the 1st of April, 1917. Half-salary grants were restored in aided Anglo-Vernacular and European schools and the cost of Anglo-Vernacular and European education was transferred entirely to Provincial Funds. Improved courses for Normal schools were introduced and curricula for Anglo-Vernacular and Vernacular schools, revised in accordance with the recommendations of the committees on female education, on the teaching of science and on the Imperial Idea, were put in force. A curriculum for Anglo-Chinese schools was sanctioned.

The Baptist College was affiliated up to the I.A. in Chemistry and the Rangoon College up to the B.A. in Persian. The Matriculation examination of the Calcutta University was abolished in Burma and High Schools were disaffiliated. The Madras University granted recognition to the High School Final Examination as qualifying students for admission to the I.A. course in Madras. Recognition by the Burma Government of the London University Matriculation test as a qualification for Government service was withdrawn.

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In consequence of the abolition of the Commercial Examinations held under the auspices of the Midland Counties' Union of Educational Institutions, Birmingham, sanction was given to the examination of private students in the commercial subjects only of the Anglo-Vernacular High School course and the award of a commercial certificate.

The Fee Funds for the assistance of poor students were increased; free education was granted to the children of teachers in the schools in which they were employed; additional Middle English scholarships were sanctioned for girls, and the age limit was raised by a year; stipends were sanctioned for pupils in Standard VIII and students taking the I.A. course with a view to proceeding to a normal school; additional grants were provided for the S.P.G. Blind School at Kemmendine; proposals for an extension of education to the blind and deaf were discussed; and a Committee appointed to consider the proposals of the Roval Commission for the reorganization of the Educational Services submitted its report.

Number of schools and scholars and expenditure.

207. The number of all institutions, public and private, rose from 27,079 to 27,532, but attendance fell from 592,523 to 584,298. Private institutions alone shewed an increase of 516 schools and 1,862 pupils. Public institutions declined from 9,564 to 9,501, or less than one per cent.; attendance fell from 393,399 to 383,312, or two-and-a-half per cent.; secondary schools declined by 8 from 1,400 to 1,392, the loss being in vernacular middle schools; attendance declined by 2,858, or two per cent. The whole loss was in the lower primary standards of these schools. Upper primary vernacular schools shewed an increase of 448 schools and 9,040 pupils. Lower primary vernacular schools decreased by 560 and pubils by 17,983. There was a net loss of 111 primary schools and 8,860 pupils. In the lower primary standards of all public institutions there was a loss of 14,417 pupils, which was reduced by an increase in all other standards to a net loss of 11,696.

The total expenditure on education during the year rose from Rs. 66,70,145 to Rs. 77,49,944. There was an increase of Rs. 11,91,531 in the amount debited to Provincial Funds, which was balanced to some extent by a decrease of Rs. 1,84,994 in the sum contributed by Municipal Funds, on account of the transfer of the cost of Anglo-Vernacular education to the former. Of the remainder, a little over Rs. ten lakhs, Rs. 7,20,422 was spent on the acquisition of the University site. Local Funds contributed Rs. 7,00,335, or Rs. 83,923 more than in 1916-17. The total net increase of expenditure from funds raised in the Province and from previous special grants was Rs. 2,99,004, or just over 7 per cent. Fees rose by one per cent. from Rs. 21,00,329 to Rs. 21,22,563. "Other sources," that is mission grants, contributions and endowments, contributed Rs. 7,01,804, or Rs. 41,895 less than in the previous year—a decline of nearly 6 per cent. Of the total expenditure, excluding the cost of the University site, roughly 60 per cent. was met from public funds, 30 per cent. from fees, and 10 per cent. from other sources.

The average annual cost per head of educating pupils rose in every class of institution except special schools (*i.e.* those for Law, Engineering and Pâli, the Reformatory School and technical schools); in Arts Colleges from Rs. 311·1 to Rs. 359·1; in secondary schools from Rs. 23·2 to Rs. 25·5; in upper primary schools from Rs. 4·8 to Rs. 5·0; in lower primary schools from Rs. 2·6 to Rs. 2·7; and in training schools from Rs. 284·1 to Rs. 316·8. In special schools the cost per head fell from Rs. 18·02 to Rs. 14·7. For allpublic institutions taken together the cost per head rose from Rs. 11·6 to Rs. 12·6. The average expenditure per head of population rose from 8 annas 10 pies to 10 annas 3 pies, of which Public Funds contributed 6 annas 6 pies or 1 anna 5 pies more than in 1916-17. The share derived from private sources remained the same, 3 annas 9 pies.

Primary education.

208. There were 17 Anglo-Vernacular and 2 European primary schools on the registers. Primary schools of all kinds for boys declined from 6,788 to 6,681 and pupils in attendance from 222,486 to 215,204. The number of pupils in the primary stages of all public schools for boys fell from 314,858 to 304,211. These figures include girls in schools classed as boys' schools. Excluding girls

and including boys in schools classed as girls' schools, the number of boys in the primary stages of all public schools fell from 244,555 to 235,984. The whole of the loss took place in the lower primary stage, in which more than four-fifths of the total number are learning.

Registered monastic schools declined in numbers both absolutely and relatively to lay schools. Girls in monastic schools have increased and number 8,724, or over 7 per cent. of the total number of girls in public schools. The Tavoy District still claims the least progressive monasteries in the Province. Candidates for the *Mula-ganan-thincha* examination in arithmetic open only to genuine monks and novices rose from 570 to 583, and passes from 107 to 128.

A special curriculum was sanctioned during the year for vernacular primary schools in order to give a more practical turn to the training of the boys who have no intention of proceeding to a middle school, and in some measure to round off their education at the end of the primary stage. A number of schools adopted the course and a report will be made of the result.

The maintenance grant was extended to few schools during the year. The Divisional Boards were unwilling to extend it on the ground that the primary schools would suffer pecuniarily. Proposals were submitted to Government for the increase of the rate of maintenance grant in the primary department and a decrease of the rate in the middle and high departments. Enquiries shewed that the application of the maintenance grant on the revised scale would have enhanced the earnings of the schools in every division, except Irrawaddy, where the results grants earned (though not always paid) are considerably higher than in other divisions. A full investigation is proceeding which should throw light on the variation in standards of examination and consequent variations in the results-grants earned as well as on the comparative cost of results-grants and maintenance grants.

Secondary education.

209. European Education and Female Education are dealt with in later sections. This section treats only of Anglo-Vernacular and Vernacular boys' schools above the primary stage, but the statistics include girls in boys' schools and pupils in the primary standards of secondary schools.

The number of Anglo-Vernacular schools rose from 132 to 135, but the attendance fell by 11 pupils to 26,524. Vernacular schools declined very slightly from 1,117 to 1,112; but the attendance fell from 85,948 to 83,231. Decreases occurred exactly where they would be expected to occur in times of financial depression. The heaviest loss of all was in the lower primary standards of vernacular schools, which are filled by the children of the classes that naturally suffer most by the dislocation of trade due to the war.

The effect of these variations was to increase the percentage of pupils in the middle and high departments of secondary schools. The increase in the high department was negligible. In the middle department the percentage for Anglo-Vernacular schools rose from 37·6 to 38·3 and for vernacular schools from 10·9 to 11·7. The upper primary stage of Anglo-Vernacular schools showed a decrease from 34·4 to 32·9 and the lower primary stage a slight increase from 20·4 to 21. In vernacular schools the percentage in the upper primary department rose slightly from 21·3 to 21·7 owing to the decrease from 67·6 to 66·4 in the lower primary stage.

The transfer of Anglo-Vernacular education from local authorities to Government was completed at the beginning of the year, but the corresponding transfer of Government vernacular schools to local control presented greater difficulties. The 3 high and 26 middle vernacular schools managed by Government in the previous year were not handed over to local control before the end of the year of report. Government now manages 18 high and 19 middle Anglo-Vernacular schools, 2 more in each case than in the previous year. Aided high schools numbered 28 and middle schools 70, 7 more and 4 less, respectively, than in 1916-17. The average attendance in Government high schools was 281, in aided high schools 334, in Government middle schools 129, and in aided middle schools 137.

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An improved scale of pay for teachers in Government Anglo-Vernacular schools to be financed from a special grant sanctioned during the year of report was approved by the Local Government, but has not yet been introduced.

The examination returns for the year showed much progress. Not the least satisfactory feature was a decline of nearly a hundred candidates for the Calcutta Matriculation examination. The vernacular ninth standard showed an increase in candidates from 70 to 190 and in passes from 43 to 124, *i.e.* an increase from 61 per cent. to 65, which is due to the inclusion of second-year Normal students, who now take this examination instead of a literary examination of equivalent difficulty.

The results of the examinations were as follows:—

Examination.	1916-17.		1917-18.	
	Number presented.	Number passed.	Number presented.	Number passed.
Anglo-Vernacular High School Final ...	549	278	531	311
Calcutta Matriculation	545	282	448	266
Vernacular Ninth Standard	70	43	190	124
Anglo-Vernacular Seventh Standard ...	2,546	1,200	2,690	1,284
Vernacular Seventh Standard ...	2,604	883	2,481	1,150

Collegiate education.

210. The number of students on the rolls of the two colleges at the end of March 1918 was 685. Of these 575 were at the Government College and 110 at the Baptist College, an increase of 19 at the former and 3 at the latter compared with the figures of the previous year. Arts students were fewer by 11, but science students more by 30 than in the previous year. This increase augurs well for the future of medical, forest, engineering and other technical services in the Province.

Logic continued to decline in favour with I.A. students. The Burman has not in the Intermediate course a sufficient knowledge of English to study Logic to advantage, as is shewn by the details of the 1917 examinations. Of 161 I.A. candidates from the Government College, 101 failed in English and 54 in English only; all the unsuccessful I.Sc. candidates failed in English; of 30 who failed in the B.A. 27 failed in English and 15 in English only. It was concluded that the English classes were too large. The details of the examinations of 1918 were not received during the year. Amongst the successful candidates was Ma Thein, the first Burmese lady to take a degree.

The number of students in the Law class was 40, the same as last year. Twenty-three were studying for the second grade pleadership and 6 of these were also candidates for the first year Calcutta B.L. examination; 5 other students studied for the first year and 12 for the second year B.L. Four Burmese students passed the Preliminary B.L. examination held in the year of report.

The Baptist College was affiliated in June 1917 up to the I.A. in Chemistry with effect from the beginning of the academic year. A chemical laboratory was installed in the upper storey of the Cushing Memorial building. Dr. Kelly resigned the Principalship on his return from furlough in July, and Dr. Gilmore, who had officiated in his absence, remained in charge. The time has come when the appointment of separate principals for the school and college departments should receive the serious attention of the mission.

The Burma University scheme made little progress during the year. Approval of the interim scheme was made conditional on sanction for the final scheme which was found to be impracticable on financial grounds.

At the Medical College, Calcutta, 9 male and 3 female students from Burma held scholarships. None qualified during the year. The only student who appeared for the final M.B. examination failed. Two students with hospital assistant scholarships were undergoing training in Vizagapatam, 10 in Tanjore, 12 in Calicut and 25, including one female, in Royapuram. Two of these 48 students are Anglo-Indians, the rest Indians, chiefly from Madras. The Burma

Medical School, Rangoon, began the year with 70 students and ended with 107 on the roll; 52 Burmans, 4 Chinese, 44 Indians and 7 Anglo-Indians. There were 7 female students of whom 4 were Anglo-Indians, 2 Burmese and one Indian. At the Dufferin Hospital 32 pupils were trained in midwifery and all passed. In the Veterinary schools at Insein and Taunggyi the year opened with 34 pupils on the roll and closed with 43. CHAP. VII.—INSTRUCTION.

The total number of candidates for the *Patamabyan* examinations rose from 1,311 to 1,329, and passes from 456 to 573. Of 4 nuns who sat, two passed the *Patamalat* and one the *Patamagyi* stage. Thirteen laymen and two lay women took the examination, and 4 men passed.

The results of the Calcutta University Examinations so far as Burma candidates are concerned are as follows:—

Examination.	1916-17.		1917-18.	
	Number presented.	Number passed.	Number presented.	Number passed.
M.A. (Private students) ...	...	...	5	2
B.A.	81	45	76	38
B.Sc.	12	8	16	8
I.A.	233	96	198	119
I.Sc.	63	34	68	41

Technical education.

211. Three Government and eleven aided institutions are classed as Technical —an increase of two Commercial Schools and one Industrial School on the aided list. The number of pupils in Government institutions fell from 195 to 175; the Reformatory School at Insein was responsible for a loss—which is satisfactory—of eleven pupils. Aided institutions include six Commercial Schools in Rangoon which teach shorthand, type-writing, book-keeping and commercial correspondence. The remainder, except one in Akyab, are attached to aided schools for ordinary instruction. Cookery, dress-making, lace-making, carpentry, printing, book-binding, weaving, cane-work, smith's work and shoe-making are taught. Needlework is now a compulsory subject for girls in all schools.

The war had a retarding effect on the progress of the Engineering School at Insein. Fewer candidates presented themselves and the wastage was heavy. The numbers on the roll, including those in the apprentice class, fell from 104 to 95. In addition to these other apprentices were trained in the workshops of certain Rangoon firms.

Manual training formed part of the course in 9 Anglo-Vernacular, 26 Vernacular and 6 Normal schools. It no longer forms part of the compulsory course in vernacular normal classes and three Normal schools have discontinued it.

School gardening progressed slowly. Two new schools, making 286 in all, took up the subject during the year. A competition held in January 1917 at Rangoon under the auspices of the Agri-Horticultural Society attracted 31 entries. Some of the exhibits were excellent and the Roman Catholic Mission School at Thônze was again the most successful of the competitors.

The number of students in the 18 Government Survey schools rose from 140 to 236. Of these 140 received stipends of Rs. 10 per mensem. The results of the examination held by the Educational Syndicate were very satisfactory in Arithmetic and Revenue, but less so in Surveying, though the percentage of passes in this subject, 52 per cent., was better than in the previous year.

Training schools.

212. The number of Normal Schools, five Government and three aided schools for masters, and four aided schools for mistresses, remained unchanged. The number of students attending the former fell from 531 to 458 and of those attending the latter from 176 to 167. The serious decline in attendance at schools for males was attributed to (*a*) war conditions and particularly recruiting for the Burma regiments, which undoubtedly attracted a number of men who would otherwise have joined the Vernacular schools; (*b*) the raising of the initial qualification for primary grade vernacular male students to Standard VII; and (*c*) the inclusion in the returns for schools for masters of the Government Normal

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School, Rangoon, which is a mixed institution and lost a number of higher grade female students by the withdrawal of the bait of assistance in passing the I.A. The general cause affecting both classes of the schools was the change in the Normal school curriculum, which inevitably produced a certain amount of dislocation.

The result of making the I.A. the initial qualification for the Anglo-Vernacular higher grade certificate was temporarily to check the recruitment of candidates for that grade. The number of male students in the Anglo-Vernacular higher grade fell from 48 to 36, female students declined from 25 to 8, but the number of higher grade passes was the same. On the other hand the number of men taking the Anglo-Vernacular middle grade course increased from 46 to 66 and of women from 14 to 28. In the Anglo-Vernacular primary grade course, for which the initial qualification was raised to Standard VIII, the number of men increased from 89 to 91 and the number of girls decreased from 85 to 79. The total number of Anglo-Vernacular students thus rose from 307 to 308. The fact that better work was done under the new curriculum, with its greater stress on the theory and practice of teaching, is shewn by an increase of 28 in the number of passes gained in the theoretical tests.

The number of students taking the vernacular higher grade course rose from 7 to 16, one girl for the first time taking this course. The number of students in the middle grade rose from 146 to 218 and in the primary grade fell from 247 to 80. Apart from the diversion of students from the primary to the middle grade there is a net loss of 86 students in all grades, which seems to be connected with the decline in primary education generally.

The primary grade lies between the middle grade on the one side and the elementary training classes on the other. The latter, 19 in number, were attended by 231 pupils, or 14 less than in the previous year. Of these 219 qualified or 17 less than in the previous year. The popularity of these classes was at first artificially stimulated by the provision of full stipends of Rs. 15 rising to Rs. 20 for successful students. It is obvious that if all teachers as far as possible are to be trained, it becomes impossible for Government to provide salaries for more than a fraction of the total number. There is still a wide sphere of usefulness open to the elementary training classes in training young teachers already employed. Inspecting Officers have been instructed to give preference to such teachers in selecting their candidates for training and to urge them to join the training classes. The Divisional Boards have also been requested to consider the claims of elementary teachers in the allotment of half-salary grants.

The results of the Educational Syndicate's examinations differ only slightly from last year's results. In the Anglo-Vernacular tests 392 appeared and 218 passed, 19 in the higher, 81 in the middle and 118 in the primary stage. In the previous year 197 passed out of 319 presented. Vernacular candidates numbered 1,646 of whom 641 were successful; the figures were 1,677 and 674 respectively in the previous year. The decline in the number of vernacular primary grade candidates from the normal schools was balanced by an increase in the number of private candidates. There was a decline of 54 passes in the middle stage: the other stages showed an increase.

The following statement shews in tabular form the distribution of students:—

—	Anglo-Vernacular.				Vernacular.			
	1916-17.		1917-18.		1916-17.		1917-18.	
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
High School Certificate ...	48	25	36	8	7	...	15	1
Middle School Certificate ...	46	14	66	28	124	22	176	42
Primary School Certificate ...	89	85	91	79	148	99	16	64
Elementary Training Class ...	...	...	...	...	189	56	158	73

The results of the Theoretical examinations held by the Educational Syndicate were as follows :— CHAP. VII.—INSTRUCTION.

	Anglo-Vernacular		Vernacular.	
	1916-17	1917-18.	1916-17.	1917-18.
High School Certificate ...	19	19	27	28
Middle School Certificate .	99	81	222	168
Primary School Certificate ...	79	118	425	445

European schools.

213. The number of European schools was reduced from 33 to 32 by the closing of the American Baptist Mission European school at Mandalay. Of these 32, eighteen are high schools, nine middle schools and five primary schools. The number of European pupils rose from 4,743 to 4,902 : that of non-Europeans fell from 731 to 703. These include Jews, Parsis and Armenians, who are not reckoned in the ten per cent. of non-Europeans permitted by the Code. European pupils in other than European schools rose from 434 to 468. The net result was an increase from 5,177 to 5,370 European pupils under instruction. There was an increase of two students in Arts colleges. Schools showed satisfactory increases in the high and lower primary stages, but trifling increases in the middle and upper primary classes. Boys taken alone have decreased by 21 in the upper primary department.

The total number of teachers employed in European schools rose from 291, of whom 192 were certificated, to 303, of whom 202 were certificated. Europeans under training in normal schools increased from 49 to 55, of whom only four were men. The scarcity of European male teachers has been aggravated by war conditions. The results of the school examinations showed satisfactory progress. Pupils presented for the European seventh standard decreased from 308 to 297, but passes increased from 191 to 219. In the European High School examination presentations rose from 129 to 157 and passes from 61 to 77. The war has undoubtedly affected the entries and passes in University examinations; one B.A., one B.Sc., seven I.A. and four I.Sc. candidates were successful. The figures were 7, 3, 14 and 7, respectively, in the previous year.

Education of Mahomedans and special classes.

214. The number of Mahomedan pupils under instruction rose from 24,899 to 27,829. Of these 18,726 were in public and 9,103 in private institutions. The latter were elementary *maktab* schools teaching the Koran only. There were six Anglo-Vernacular schools for Mahomedans, five of them in Rangoon and one in Mandalay. In the previous year there were 5 only, all in Rangoon. Attendance in these schools rose from 496 to 606. Vernacular schools for Mahomedans increased from 189 to 209 and attendance from 8,276 to 9,752. Attendance increased in every stage except in Arts colleges, where there was a decline from 48 to 39 students. There were 8,449 Mahomedans in ordinary schools, chiefly Burmese vernacular schools. Even in Arakan, which has 107 Mahomedan vernacular schools with 3,432 pupils, there is little demand for Urdu. Most Mahomedans except the Chittagonian immigrants speak Burmese or Arakanese as their vernacular and require only a little Urdu to enable them to understand the Koran. The Urdu section in the Government High School, Akyab, numbered only eight pupils, all in the primary department. There is little or no demand for purely Urdu schools except in Rangoon and Moulmein, where the Indian Mahomedan population is largely concentrated. In the whole of Upper Burma there were 18 registered Mahomedan schools with 1,073 pupils—less than a quarter of the total number, 4,467, of Mahomedans under instruction in public schools in the same area.

The total number of Mahomedan girls under instruction rose from 6,454 to 7,455. Of these 4,644 were in public schools. Ten Mahomedan girls attended European schools, 87 Anglo-Vernacular schools and five normal schools. The percentage of increase in girls attending public schools was 16 and in all pupils 13. The rapid progress of female Mahomedan education which marked the last quinquennium has appreciably declined.

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Mahomedans under instruction in public schools formed 4·9 per cent. of the total number of pupils in the high stage, 5·1 of the total in the middle stage, and 5·1 of the total in the secondary standards taken together. Three Mahomedans passed the B.A. examination, nine the I.A., three the I.Sc., 19 the Calcutta Matriculation, 20 the Anglo-Vernacular High School Final, and 98 the Seventh standard, European, Anglo-Vernacular and Vernacular. The corresponding figures for 1916-17 were—B.A. two; I.A. six; I.Sc. three; Matriculation 21; High School Final 16; and Seventh standard 111.

The number of public institutions for the instruction of special classes fell from 1,715 to 1,704 and the number of pupils from 55,749 to 55,137. The chief loss occurred in Karen schools. The Karen like the Burman is usually a cultivator, and the adverse influences which affected the Burmese schools affected the Karen schools also. Anglo-Vernacular schools increased from 38 to 39 and the number of pupils from 6,102 to 6,308. Private institutions increased from 1,186 to 1,226 and the number of pupils from 15,740 to 16,314. Nearly half of these are Shan monastic schools. The number of Chinese private schools was returned as 14 and the number of pupils as 1,052, but these figures are probably below the truth. More than 20 languages or dialects were used in the schools. Twelve of these are taught in special Anglo-Vernacular schools and three, Kachin, Chin and Shan, in Government schools. In addition to the pupils in attendance at these special schools there were many belonging to the special classes, mainly Karens and Talaings, in attendance at the Burmese and Anglo-Burmese schools. These swell the total of pupils of special classes under instruction in public institutions to 73,777 and in private institutions to 18,004; the figures for the previous year were 73,700 and 17,183 respectively. The only Government Anglo-Vernacular school is that for sons of Shan Chiefs at Taunggyi in the Southern Shan States.

The number of schools for the blind remained the same. There is one at Kemmendine (Rangoon) and one at Moulmein. The former had 15 pupils (of whom 7 were girls), an increase of 8 over those of the previous year, and now enjoys the services of a blind Oxford graduate, Mr. Jackson. The number of pupils in the latter rose from 27 to 31.

Female education.

215. The number of girls in public institutions fell from 120,207 to 116,613. The chief loss, as in the case of boys, was in lower primary schools. Secondary schools showed a slight decrease and upper primary schools an increase of three per cent. The number of girls in Arts Colleges rose from 18 to 27, owing to the discontinuance of the I.A. classes in the Government Normal School, Rangoon. In addition to these there were still seven girl students at the Normal School, who, having entered under the old regulations, were finishing their course. Thus there were 34 female students taking Arts courses in 1916-17. There were 43 (including 25 normal students) in 1916-17; and 18 in 1915-16. The decline in numbers was not general or evenly distributed. It was greatest in the Irrawaddy Circle, and considerable in the Tenasserim and Pegu Circles; Arakan, Mandalay and Meiktila Circles showed increases. The chief loss was naturally among the Buddhists, who form over four-fifths of the population. Mahomedans, who have most leeway to make up and Anglo-Indians showed satisfactory progress.

The only girls' schools maintained by Government are one upper primary and six vernacular secondary schools. The number of aided vernacular girls' schools of all grades declined from 1,031 to 1,022; that of European and Anglo-Vernacular aided schools remained unchanged—20 European and 19 Anglo-Vernacular. The orders against co-education beyond Standard IV, or the age of 12 years, provided that facilities for separate education exist in the locality, were extended to Anglo-Vernacular schools during the year. Provision was made against undue interference with existing Mission schools in which co-education receives the approval of the people. In the revised curricula approved during the year for both Anglo-Vernacular and Vernacular schools, the courses in arithmetic and elementary science for girls in middle standards were lightened, so as to provide time for needlework, but the differentiation was not so great as to render the teaching of mixed schools unduly difficult.

Female candidates proved more successful in proportion to their numbers than male candidates at School Final and University Examinations. Three candidates appeared for the B.A. examination and 2 passed; 17 for the I.A. and 11 passed; 38 for the Anglo-Vernacular High School Final Examination and 27 passed; 66 for the European High School examination and 39 passed; and 20 for the Matriculation Examination and 16 passed.

Reformatory School, Insein.

216. The year opened with 90 inmates on the roll of the Reformatory School, Insein, and closed with 80. The daily average was 86. Sixteen boys were admitted during the year, 12 Burmans and 4 Indians; 26 were discharged. Reports received on 73 boys discharged during the last three years shew that only one was re-convicted. Punishment was inflicted on 74 occasions; 56 punishments were for insubordination; 48 boys in all were punished. Discipline at the beginning of the year was not satisfactory, and a disturbance took place in May, for complicity in which two teachers were removed. The result was a marked improvement in the conduct of the boys. The results of the examination both in literary and technical subjects were very satisfactory. There were no failures in the latter and only six in the former. Religious and moral instruction was given weekly by Sayadaw U Nyaneinda of Rangoon, who with the assistance of three learned colleagues examined the boys in the Buddhist Scriptures and presented prizes to successful candidates. Athletic sports were held on the 8th of December, 1917, and the prizes were given away by the Deputy Commissioner. From the gratuities under the "marks system" the boys contributed Rs. 72 to "Our Day" Fund. The tone of the school improved during the year. No punishments at all were inflicted in November 1917, or February 1918.

Literature and the Press.

Publications registered.

217. There was again a considerable decrease in the number of publications, from 255 in 1916 to 216 in 1917. Of these 16 were written in English, 100 in Burmese, 35 in Pâli, 37 in Pâli and Burmese and the rest in Karen, Kachin, Tamil and other languages. The great majority as usual, 101, were works on religion, but 7 were biographies, 4 dramas, 14 works of fiction, 6 dealt with history, 17 with language, 8 with philosophy and 11 with science.

The number of biographies increased. Those under review included lives of Buddhist monks in Burmese, one of which is written in poetry, the life of a Talaing preacher in Karen translated by Dr. Stevens, the life of a Tamil poet by his son and the life of Dhammaceti, the Talaing King of Pegu, an historical work of some importance.

Dramatic works decreased remarkably during the year and their literary standard was disappointing. Works of fiction decreased slightly, but the number was still high compared with years previous to 1916. Most of them are love stories of modern life and are written with a view to sale amongst school boys who know a little English. They are published in parts which are in no respect dissimilar: if the first part sells well another part is published. Yet these novels illustrate the Burman's taste for stories—in former times the professional teller of stories was a most welcome guest in every village—and show a break with the tradition that the publication of a story is only justifiable if it points a moral, and the colloquial Burmese in which they are written perhaps indicates a revolt from the old literary language and manner which were elaborately stiff and rigid without possessing real literary merit.

Among the historical works were an account of the American Baptist Mission Press between 1816 and 1916 and four versions of the legends of the Shwehmawdaw Pagoda, Pegu. The latter were probably due to the great interest recently aroused in that Pagoda by its partial destruction by an earthquake in July, 1917.

Books on language decreased slightly and included two important dictionaries, English-Burmese and Shan-English, a Burmese and several Pâli grammars, readers in dialects and a volume of English proverbs and idioms with Burmese equivalents.

CHAP. VII.—INSTRUCTION.

The books on philosophy were written in Pâli or Burmese and Pâli and included several editions of the famous compendium of Buddhist philosophy, *Thingyo Pat*. The number of books on religion recovered slightly from the large decrease recorded last year. It is remarkable that the one of which the largest edition 10,000 copies, was printed was a volume of incantations to avert sickness and evil spirits. Only 31 were in Burmese and they consisted of prayer books, treatises on subjects like meditation, almsgiving and filial piety, sermons and translations from Pâli. Fifty-eight were in Pâli or Pâli and Burmese, chiefly editions of Buddhist scriptures, commentaries and prayer books. These religious books were written by able and devout men and are widely read, but show little originality. There were few Christian books among those written in Burmese, but they comprised most of those written in minor languages such as Chin and Karen.

The scientific books included works in Burmese on Arithmetic, a Geography of India, a Catechism of Chemico-Agricultural Science, three charts of the Rangoon River, a hand book for treasure-seekers and several treatises on astrology. Among the 42 publications classed as miscellaneous 33 were in Burmese and included a pamphlet on the war by U Ngwe Gaing, K.S.M., A.T.M., and a handbook for non-commissioned officers. The large number of books of rules of Charitable Associations, Clubs and Companies seemed to indicate a large increase in societies. One of the most interesting of the publications contains the witty sayings of U Paw U, the Minister of King Bodawpaya. This type of book is very popular, as the sayings are shrewd, clever and amusing and the Burman loves a proverb. Another was a collection of Burmese songs. A book on cookery—probably the first in Burma—was also published.

Presses, newspapers and periodicals.

218. The number of presses, excluding the Government presses, in the Province fell from 160 to 154. In Rangoon four presses were opened and four closed and the number remained the same, 67. In the Mandalay District two presses were closed and one was opened and the number fell from 29 to 28. In the Amherst District three presses were closed and one was opened and the number fell from 12 to 10. The press at Ma-ubin and at Shwebo were closed during the year. The number of presses in the Insein District rose from two to three and in the Hanthawaddy District fell from three to one.

The number of newspapers published rose from 47 to 50, owing to the increase from 36 to 40 in Rangoon and the abolition of a Burmese Weekly in Toungoo. Mandalay still had four, Bassein three, Akyab two and Amherst one. Of the ten daily newspapers three were in English, three in Burmese, two in English and Burmese, one in Tamil, and one in Chinese. Of the newspapers not published daily 15 were in English, 9 in Burmese, five in English and Burmese, five in Karen, two in Kachin, one in Urdu and one in Gujerati. The figures for the previous year were 13, 9, 4, 6, 2, 1 and 1 respectively.

The number of periodical publications other than newspapers and Government publications increased from 25 to 30 owing entirely to an increase in Rangoon. Mandalay still had five and Toungoo three. Of these 13 were in English, 11 in Burmese, 2 in English and Burmese, 3 in Karen and 1 in Tamil and the figures of the previous year were very similar, 10, 11, 2, 1 and 1 respectively.

Literary Societies.

See paragraph 294 of the *Report on the Administration of Burma* for the year 1911-12.

Rangoon Societies.

219. There were ten societies, the same number as in the previous year. They were the Literary Society, the Rangoon Teachers' Association, the Bernard Free Library, the Agri-Horticultural Society, the Bar Library Association, the Rangoon Pleaders' Association, the Buddhist Propaganda Society, the Young Men's Buddhist Association, the Burma Moslem Society and the Burma Research Society. Members of the Literary Society increased from 132 to 160, but

additions to the library fell on account of the difficulty of shipping books from London. Its income, which is made up entirely of subscriptions of the members, rose from Rs. 6,364 to Rs. 7,795.

Lectures on physical education, moral education and co-operation were delivered under the auspices of the Teachers' Association, but the number of visitors to the library and reading-room fell from 10,439 to 8,368.

The Bernard Free Library issued 10,404 books to 1,899 registered borrowers (of whom 751 were Burmans and 574 Indians) during the year; in the previous year the figures were 9,305 and 1,691 respectively. The balance at the end of the year fell from Rs. 4,151 to Rs. 4,027.

The Bar Library Association and the Rangoon Pleaders' Association had a prosperous year.

The Buddhist Propaganda Society consisted of 466 members and held 11 meetings. Its object is to preserve the Buddhist religion and to improve Buddhists morally and mentally.

The number of members of the Young Men's Buddhist Association fell from 191 to 175. Public questions, religious, educational and political, were discussed, social meetings were held and three lectures were given. The balance at the close of the year rose from Rs. 46 to Rs. 426.

The Burma Moslem Society increased its members from 146 to 171 and did much useful work. It organized a very successful entertainment in aid of "Our Day" Fund. The pressing need of the society is accommodation. The balance at the end of the year rose from Rs. 146 to Rs. 340.

Arts and Sciences.

220. No change for the better took place in the condition of the workers in Art in the Province during the year. The weaving industry, though it received attention from Government and educational help by means of the Saunders Weaving Institute, suffered, from the economic conditions, as the pupils found that the current prices of raw silk and cotton yarns prevented their making profitable use of the technical knowledge acquired at the school. In the Art industries dealing with expensive materials, such as silver and ivory, the demand was so small that many of the craftsmen found it difficult to remain in business. In those dealing with less expensive materials, such as pottery and lacquer work, the mutual distrust of craftsmen and the lack of co-operation and of organised sale agencies in the markets leave the individual artisans the virtual slaves of the small traders, who advance them small sums and then pay such low prices for their wares that they can never keep out of debt.

The Annual Art Exhibition was held in January 1918 at the time the Industrial Commission was in Burma. The members of the Commission visited the Exhibition. The pottery industry was made a special feature of this Exhibition and a collection representative of all the various forms produced in the Province was shown. The black pottery of Letthit attracted especial attention and was in considerable demand. Sixteen apprentices were in receipt of Art scholarships during the year.

CHAPTER VIII.

ARCHÆOLOGY.

REFERENCES—

Report of the Superintendent, Archæological Survey, Burma, for the year 1917-18.

221. The programme of work for the year of report consisted of six archæological and four epigraphical items. The former comprised the compilation of a monograph on terra-cotta plaques with Jātaka scenes from the Petleik Pagoda, Pagan, of the second part of the monograph on the Ananda Temple at Pagan and of a history of architecture at Pagan; the continuation of the examination of Yathemyo (Pegu) and Twante; the excavation for Pyu inscriptions near the Payagyi Pagoda, Hmawza; and the preparation of "*Catalogues Raisonnés* of the museums of the palaces at Pagan and Mandalay. The latter comprised the translation of the first volume of the "Inscriptions collected in Upper Burma, 1900" and of the "Original inscriptions collected by King Bodawpaya, Upper Burma, and now placed near the Patodawgyi Pagoda, Amarapura"; the compilation of an exhaustive list of the inscriptions found in Burma; and the publication of some of these inscriptions with plates, literal transliteration, translation and notes.

Fair progress was made on the compilation of the monographs and history and on the preparation of the catalogues, but the other items had to be postponed for want of time. The compilation of the list of inscriptions progressed and articles on the Pāli and Burmese versions of the Myazedi inscriptions were sent to the press and it is expected that the first number of the *Epigraphia Birmanica* will be published about the 1st of March 1919, but the rest of the epigraphical programme had to be left in abeyance for want of staff.

The Director-General of Archæology in India arrived on Christmas eve, 1917, on tour and inspected the ruins of Pagan. He made suggestions regarding the extension of the museum there and recommended that a map of the city, the ruins of which cover nearly 100 square miles, showing the notable monuments and the approaches to them be made on a large scale. An attempt was made to secure better arrangements for landing at Pagan from river steamers on the Irrawaddy, but it was found that none could be made till after the war. The proposal to make casts of the plaster carvings at Minnanthu (Pagan) had to be postponed owing to the cost of plaster of Paris.

As in previous years the *Thathanabaing* (Buddhist Archbishop) and the Hermit of Mandalay Hill continued to show zeal for repairing ancient monuments, and the trustees of the Shwehmawdaw Pagoda, Pegu, which was partly destroyed by an earthquake in July 1917, began its repair under the expert advice of the Executive Engineer of the division, but the choice of the method to be adopted led to considerable dispute. The remains of the East India Company's factory erected in 1753 in Hainggyi Island in the Bassein District were enclosed with a fence.

During the year of report the duty of signing certificates of completion of annual repairs to ancient monuments was delegated to civil as well as archæological officers.

When the Viceroy visited Mandalay in December 1916, he was of opinion that more should be spent on the palace. The Director-General made certain suggestions during his visit and a committee met in April 1917, to draw up a scheme for improving the buildings and gardens. The difficulty is chiefly one of finance as the renewal of the teak, the lacquer and the gilding would be costly, especially during the war, but the matter is being considered by the Local Government. The Burmans show more interest in erecting new religious buildings than in repairing historical ones.

The staff was occupied during the year with several interesting problems. Evidence was obtained in support of the thesis that instead of the Burmans receiving their letters and religion from the Talaings in the eleventh century A.D., both the Burmans and the Talaings received them from the Pyu. Mr. Blagden

continued his work on old Talaing inscriptions including one dated 1098 A.D. in the Phayre Museum, Rangoon, and three found at the Shwesandaw Pagoda, Prome, all four of which were set up by King Kyanzittha. From Arakanese manuscripts proof was obtained that the Vesālī mentioned in Burmese history relating to the reign of Anawrata is the Vesālī near Myohaung in the Akyab District of the Arakan Division and not that of India and fresh light thrown on the invasion of Arakan by Anawrata, Sawlu, Kyanzittha and Alaungsithu who ruled Pagan successively from 1044 to 1187 A.D. Further investigation was made into the origin, character and policy of this famous king, Kyanzittha and the intercourse he fostered between Pagan and India. It is recorded that he incurred the anger of Sawlu and had to flee for his life and in the course of his wanderings was shielded by a serpent with its hood. The same idea is found in the story of the life of Gautama Buddha and in Indian and Chinese mythology. The study of the Talaing poem *Lik Smin Asah* in which "Vidyanagar," *i.e.*, the ancient Telugu Kingdom in the Bellary District of the Madras Presidency, is mentioned, furnished an indication that the annals of Southern India might in the future help to fix dates relating to the foundation and history of Pegu. Inquiry was made whether the "Mahāyāzawin" or "Chronicles of the Burmese Kings" had borrowed anything from these annals as it has done from those of the Shans and Talaings. The affinity of the architecture of Burma to that of China and Southern India was corroborated by examination of twelve types found in the Province. The derivation of the word "Zerbādi" (a person born of a Mahomedan father and a Burmese mother); of the Pāli names of Burmese capital towns; of the words "Karen" (in connection with an inquiry being made into the ethnography of the Karens, a race dwelling both on the hills and on the plains of Burma) and "Kalā" (the word used by the Burmans to denote a foreigner) were investigated. A Laotian (or perhaps Siamese) inscription on a small pagoda near the Ananda Pagoda, Pagan, was deciphered.

Forty-four coins struck by the Mahomedan and Hindu rulers of India belonging to the Phayre Museum, Rangoon, were classified. Thirteen gold coins, of which the earliest dated from about 618 A.D., struck by the Kings of Southern India, which were found at Kadur in the district of Nellore in 1813 were presented to this museum by the Government of Madras.

Certain curious earthworks known as *Balu-myo* and rectangular mounds known as *Balu-thingyaing* near Kyaukmè in the Northern Shan States were brought to the notice of the department and investigated.

A stone-pillar was suitably inscribed and erected to the memory of the Burmese General Maha Bandula on the spot near Danubyu where he fell bravely fighting the British in 1825.

The chief archæological discoveries made in the year of report were those of small crystal images of the Buddha about 100 or 150 years old found near Sagaing unearthed by a landslip; paintings on the walls of certain temples in Pagan; relics and images near the Mahamuni Pagoda in the Akyab District; a footprint with a stone inscription, apparently in the Burmese script of the 11th, 12th or 13th centuries, at Sindè in the Prome District; votive tablets found near Sabhar in Eastern Bengal belonging to the same period; a bronze figure of the goddess Tārā of the 9th or 10th century and other objects in the Magwe District; and a cryptic scroll at Padaung in the Prome District. Thirty drawings were made and 107 photographs were taken; many inscriptions and coins were discovered or acquired, and several contributions to archæological literature were made during the year.

The amount expended on archæological works fell from Rs. 29,751 in 1916-17 to Rs. 11,303 in the year of report and the cost of the archæological survey from Rs. 33,774 to Rs. 32,824. No grant-in-aid was received from imperial revenues and the provincial allotment was reduced from Rs. 22,039 in 1916-17 to Rs. 11,360 in the year of report.

At the request of the Buddhist community of Akyab, Maung San Shwe Bu was appointed Honorary Archæological Officer for Arakan and did much useful research during the year. The services of Mr. Taw Sein Ko, the Superintendent of the Archæological Survey of the Province, were acknowledged by his appointment to the Companionship of the Most Eminent Order of the Indian Empire.

CHAPTER IX.

MISCELLANEOUS.

REFERENCES—

Report of the Chemical Examiner to the Government of Burma for the year 1917.

Report on the working of the Pasteur Institute and Bacteriological Laboratory for the year ending 31st March 1918.

Statistical Abstract for British India, Volume IV.

Report on the working of the Office of the Superintendent, Government Printing, Burma, for the year ending the 31st March 1918.

Ecclesiastical Jurisdiction.

See paragraphs 297 to 300 of the *Report on the Administration of Burma* for the year 1911-12.

Ecclesiastical.

222. For the first seven months of the year the Bishop was on leave. The Archdeacon obtained an extension of service for a year, which enabled him to remain in charge of the diocese during this period. One of the staff of Government Chaplains was on active service throughout the year and another during the greater part of it. The vacancies which had been caused by the departure of two Chaplains to take combatant commissions in the Army remained unfilled. In consequence of Mandalay having become, and Thayetmyo having ceased to be, a Government Chaplaincy the allowance given to the Chaplain of the Additional Clergy formerly posted at Mandalay was divided between the Chaplain of St. Philip's, Rangoon, the Bishop's Chaplain and clergymen serving Prome and Thayetmyo. Owing to shortage of staff the stations of the Railway Chaplaincy had also to be served by other clergymen, allowances being given for each station.

Stationery.

223. The bulk of the paper used for official purposes continued to be supplied by the Controller of Printing, Stationery and Stamps, Calcutta, from the Indian mills. The cost of stationery supplied to General Departments and Government Presses in Burma during the year amounted to Rs. 68,003 and Rs. 2,23,856, respectively, showing decreases of Rs. 1,159 and Rs. 23,167, respectively, from the figures of the previous year.

Offices of the Chemical Examiner and the Bacteriologist to the Government of Burma.

224. During the year report of 1,817 articles were examined in the Medico-legal Department, or 284 less than in 1916, arsenic and opium being prominent in cases of human poisoning. The number of articles examined in the general Analytical Department also fell from 18,982 in 1916 to 17,883 in 1917. The decrease in the latter department was attributed to a decrease in the number of articles sent up for examination by the Excise Department, irregular steamer services affording fewer facilities for smuggling. Water analyses amounted to 315, or 28 more than in the previous year. In the Bacteriological section of the

Burma Pasteur Institute, Rangoon, 468 serum, 411 bacteriological, 29 miscellaneous and 127 histological examinations in addition to 535 protective inoculations, exclusive of those for rabies, were made. These figures show on the whole an increase over those of the previous year. Materials and media packed and despatched from this laboratory amounted to 657.

Office of the Superintendent, Government Printing, Burma.

225. The Government Presses in the Province are three in number: the Central Press and the Jail Branch Press, both in Rangoon, and the Maymyo Branch Press. Their work is chiefly printing for Government Departments. The receipts rose from Rs. 46,126 to Rs. 48,714, and the expenditure fell from Rs. 3,46,212 to Rs. 3,11,938 in the year of report. The decrease in expenditure, which has fallen nearly a lakh of rupees in the past three years, is due to retrenchment by all departments of Government and to economies effected in the Press itself. The cost of the work done in the Central Press was Rs. 2,56,934, in the Jail Branch Press Rs. 76,508, and in the Maymyo Branch Press Rs 15,330—in all Rs. 3,48,772. The corresponding total for 1916-17 was Rs. 3,80,135. The quinquennial verification of the stock of the whole of the plant in the Press was made during the year, and the value of the dead stock at the three Presses, exclusive of lands and buildings, was estimated at Rs. 6,31,630, or Rs. 1,09,333 more than in the previous year. The increase is due to the enhanced value of the type and materials in the Press, due to the rise of prices caused by the war. The value of the sales (excluding those of Gazettes) made to the public at the Government Book Depôt and by the authorized agents amounted to Rs. 12,617, or Rs. 1,599 less than in the previous year, and the additions to stock were valued at Rs. 55,988. Acts and publications supplied free were valued at Rs. 37,344, or Rs. 3,528 less than in the previous year. There was a reduction of work done in all departments, except the Map Section, where the Vandyke process of reproduction was continued; the outturn of 16-inch maps increased and the cost per sheet diminished. Difficulty was experienced in obtaining paper and its price steadily rose. Arrangements were made to keep in stock at the Book Depôt the latest Survey of India one-inch maps of the Province. With a view to attract Burmans a scheme of apprenticeship for compositors was drawn up and approved by Government and was found to be fairly successful, though it had to compete with the inducements offered to military recruits.

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REPORT

ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR

1918-19

RANGOON
OFFICE OF THE SUPERINTENDENT, GOVERNMENT PRINTING, BURMA
1920

LIST OF AGENTS

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[The maximum length of the General Summary is 10 pages, and of Part II (excluding the chapters of standard information) 150 pages.]

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REPORT

ON THE

ADMINISTRATION OF BURMA

FOR THE YEAR 1918-19.

PART I.

GENERAL SUMMARY.

1. The momentous decision, which is applicable to Burma as well as to the other Provinces of the Indian Empire, to modify the present system of administration and to introduce a measure of Constitutional Reform, with a view to the progressive realisation of full responsible Government by the elected representatives of the people of the country, has naturally been by far the most important event in the political history of the Province since the annexation of Upper Burma in the year 1886. Accordingly, it is to this question and the numerous intricate and difficult problems connected therewith that the attention of the Local Government has during the past year been mainly devoted. In paragraph 198 of their Report on Indian Constitutional Reform, the Right Honourable the Secretary of State and His Excellency the Viceroy expressed the opinion that the problem of the political evolution of Burma must be left for separate and future consideration. This opinion was subsequently endorsed by the members of the Joint Select Committee on the Government of India Bill in the following terms: "After hearing evidence the Committee have not advised that Burma should be included within the scheme. They do not doubt but that the Burmese have deserved and should receive a constitution analogous to that provided in this Bill for their Indian fellow subjects. But Burma is only by accident part of the responsibility of the Governor-General of India. The Burmese are as distinct from the Indians in race and language as they are from the British." Inasmuch as the political development of the Province is thus to be on special lines adapted to local conditions and circumstances, it was decided not to await the outcome of the proposals for the rest of India, as finally sanctioned by Parliament, but to formulate a separate scheme of Constitutional Reform for Burma without delay. In order that the recommendations might as far as possible be acceptable to the people and in conformity with their wishes, a tentative scheme was published for public discussion and criticism, and modified proposals, embodying a scheme that is analogous to, but not identical with that for the rest of India, were then submitted for the consideration of the Government of India.

2. As a necessary corollary of the proposed devolution of power in Provincial affairs, the creation and development of representative institutions in the sphere of local self-government also received attention. As regards urban administration, the Municipal Act is to be extended to all urban areas of sufficient size and importance, and all Municipal Committees will be mainly elective and almost entirely non-official. They will elect their own office-bearers, and such control as may be necessary in the interests of the general administration will be exercised from without, and not, as heretofore, from within. In rural areas local bodies similar to the District and Local Boards of other Provinces do not at

present exist in Burma. As such bodies form an integral part of the machinery in the proposed scheme of Constitutional Reform, preliminary steps were taken with a view to their creation and the drafting of an enactment defining their constitution and functions. A public pronouncement was made as to the main lines to be followed in this new legislation, the essential principle of which will be the transfer of much of the power in purely local affairs, hitherto exercised by the Deputy Commissioner, to District Councils and Circle Boards, both of which will contain a substantial elected non-official majority and be entirely free from internal official control.

3. The progress of other schemes for the moral and material welfare of the Province and for the reorganization of various branches of the administration was somewhat retarded by financial stringency and by shortage of staff, both of which were the natural aftermath of the war. Nevertheless, several most important measures were substantially advanced, while many other projects were examined and discussed. Of these, the Rangoon Development Trust Bill was perhaps the most important. The main object of this measure, which was introduced into the Legislative Council during the year, is to provide a special agency to secure the improvement, expansion and development of the City of Rangoon on correct and sanitary lines. The Burma Habitual Offenders Restriction Bill became law during the year. This measure is largely based on a similar enactment in force in the Punjab, and is designed to give greater control than that afforded by the Criminal Procedure Code over the movements of habitual criminals. The arduous work of drafting the Rangoon University Bill, with its accompanying statutes and regulations, was completed after careful consideration by a strong committee, which included five experts from India, and it now awaits the approval of the Secretary of State and the Government of India, prior to its introduction into the Provincial Legislative Council.

4. Friendly relations were maintained between the Burma Government and the Siamese, French and Chinese authorities beyond the borders of the Province. In the Shan States the year was one of quiet progress, and, in spite of the ravages of influenza and an unfavourable rainfall, the people were, on the whole, not unprosperous. In the Chin Hills the outstanding feature of the year was the successful conclusion of the operations against the rebel Kuki tribes in the Somra Tract to the north-west of the Upper Chindwin District and in the Manipur State. The Chiefs responsible for the rebellion were appropriately punished, and measures were taken to bring the Kuki tribes under effective administration. The continuance of these operations in the Somra Tract, however, necessitated adherence to a passive policy within the Chin Hills proper, and no active steps were taken against the Lawhtu tribes, which continued to maintain a defiant attitude in the south of the administered area. With this exception the tribes in both administered and unadministered territory were peaceful and friendly.

5. The vast majority of the population of the Province being agriculturists, the two main factors in the internal prosperity of the country are the crops and the prices current for agricultural produce. Unfortunately, a number of circumstances combined to cause the agricultural season to compare unfavourably with the exceptionally good one of the previous year. The rainfall was erratic and ill distributed, there was a serious outbreak of rinderpest, and the prevalence of influenza was responsible for an exceptionally heavy mortality and interfered seriously with agricultural operations. Another unfavourable factor was the continued rise in the price of all imported articles, more especially in that of cotton piece-goods, which may almost be ranked as necessaries and which have quadrupled in value since the beginning of the present century. On the other hand, there was a welcome recovery in the price of nearly every kind of agricultural produce. In Lower Burma the average price received by cultivators for their paddy was better by quite 30 per cent., and in Upper Burma the increase in the price of staples, such as maize, gram and sessamum, amounted to between 50 and nearly 100 per cent. While it would be idle to pretend that cultivators enjoyed

the same prosperity as in favourable years before the war, and there has probably been some decline in the general standard of living, there is at the same time no reason to suppose that the economic position of the great mass of the people has been seriously or permanently affected, and there have been no indications of acute distress or famine.

6. The demand of land revenue proper rose from Rs. 3,12·78 lakhs to Rs. 3,14·32 lakhs, but owing to floods and the unfavourable character of the season the amount remitted rose from Rs. 3 lakhs to Rs. 13 lakhs, and the amount actually collected fell from Rs. 3,00·22 lakhs to Rs. 2,99·60 lakhs. Except in the Arakan Division, where, owing to lack of shipping and low prices, conditions were quite abnormal, the revenue was collected easily and without undue resort to coercive measures. Settlement operations were in progress in six districts during the year and revised rates of land revenue were sanctioned in the Akyab District. In addition to the normal work of supplementary survey, progress was made with the topographical survey of forest areas in the Irrawaddy Delta, and with the survey of areas leased for rubber cultivation and mining in the Tenasserim Division. It is shortly proposed to examine the whole Land Records system of the Province with the object of ascertaining whether some modifications in the direction of increased simplicity are not desirable, and matters such as the introduction of a system of permanent holding numbers and of fixed assessment, and better co-ordination of the Land Records with the Settlement Department will then be considered.

7. The work of the Co-operative Department continued to expand and agricultural societies are now established in 26 of the 37 districts of the Province. The number of societies of all kinds rose from 3,056 to 3,612 and their net working capital from Rs. 1,22 lakhs to Rs. 1,52 lakhs. The continued growth in strength and resources of the Provincial Central Bank at Mandalay, the increase of Burmans' deposits in district central banks and in urban societies, and the remarkable vitality shown by the latter type of society were satisfactory features of the year's working. The development of town banks amongst traders and shop-keepers in Lower Burma is mainly responsible for a remarkable increase of approximately 50 per cent. in the numbers and memberships of non-agricultural societies, and it is evident that these town banks are satisfying a very real demand for credit by the industries and trades of the middle classes in towns. Progress was, however, not confined to urban societies, and agricultural societies, which of course form the vast majority of the whole number of societies, also increased, not only in numbers and membership, but also in efficiency. No fresh colonies financed by Government through the medium of co-operative societies were founded during the year, and the existing colonies languished somewhat from want of officers to supervise them.

8. Much important research work was carried out by the Agricultural Department during the year, and considerable progress has been made with investigations into the cotton problems of the Province. A satisfactory pure strain, both as regards yield and ginning percentage, has been secured and distributed to selected cultivators and a small Government ginnery is in course of erection at a suitable centre to deal with the produce and keep the seed pure. In Lower Burma the strains of pure rice bred by the Department continued to do well, and the fact that millers paid a premium of Rs. 5 to Rs. 15 per 100 baskets to secure the produce afforded tangible evidence of the improvement effected. The most suitable varieties of grain for the new and expanding trade in parboiled rice were determined, and other important tests were carried out with the object of improving the yield of groundnut, wheat and sessamum. The work of this Department has hitherto been seriously hampered by lack of staff, but during the year comprehensive proposals for the remedying of this defect were accepted by the Local Government, and are now under the consideration of the Government of India. Steps were also taken to provide adequate facilities for agricultural research and the construction of the new Agricultural College and Research

Institute at Mandalay was begun. When this building is completed a serious handicap, under which the Department has hitherto laboured, will be removed and results of far-reaching importance may be confidently anticipated.

9. One of the most gratifying features of the year's administration was a further appreciable decline in the volume of true cognizable crime. This decrease is all the more satisfactory in that it was not, as in the previous year, confined to minor offences, but was shared,to a substantial extent by all the more serious types of offences against the person and against property. Though this sustained reduction of crime is most promising, it must nevertheless be admitted that the volume of crime in Burma as compared with other Indian Provinces is still excessive, and this problem continued to engage the earnest attention of the Local Government. Detailed investigations were made during the year in the heavy criminal districts of Lower Burma with the object of ascertaining whether economic causes might not be responsible for the excessive criminality of the Province. The difficulty of diagnosing these essential underlying causes, coupled with the absence of any active public opinion against offenders, are the main obstacles to effective measures of reform. The decrease in the volume of crime naturally reacted on the work of the criminal courts, and the number of true cases dealt with by them fell by more than 11,000, including a satisfactory decrease in Lower Burma of 1,697 offences under the Indian Penal Code. The policy of improving the status and emoluments of village headmen was continued, and in certain districts there is some reason to suppose this has already been attended by good results, as evidenced by increased activity in the prevention and detection of crime. Measures were taken to emphasise the representative character of the office, and a further proposal to appoint a subordinate village official to relieve the headman of some of his drudgery and to supplement the collection of information by the village beat police officials is at present under consideration. The daily average number of prisoners confined in the jails of the Province fell considerably and was the lowest figure recorded for the past ten years. The decrease is mainly accounted for by the formation of a Jail Porter Corps for service in Mesopotamia and the labour of other prisoners was also utilized in forest work and in mining for wolfram in the Tavoy District. Promising results were obtained at the Juvenile Jail at Meiktila, and progress was made with a scheme for the establishment of an experimental seed farm at this institution. The number of subsidiary jails, which are not under the control of the Inspector-General of Prisons, rose from 17 to 20, but a serious outbreak of prisoners confined in the subsidiary jail at Kyaiklat revealed serious administrative defects in this system, and steps are being taken to reduce the need for such jails at out-stations by transferring the trial of the more serious cases of crime to district headquarters.

There was a continuance of the decline in the volume of civil litigation, and the number of suits instituted fell to the lowest figure recorded for the past twenty years. Depression in trade, contraction of credit and a realisation by creditors that the times were unpropitious for the recovery of debts were the factors mainly responsible for this very marked decrease of litigation and also for the lack of elasticity displayed by the revenue derived from court-fee stamps and the registration of documents. Progress was made with the schemes which are now before the Local Government for the formation of a High Court for the whole of Burma, and for the reorganization of the various Judicial Services of the Province.

10. Though tonnage was less scarce than in the previous year, and many restrictions were removed after the signing of the armistice, the maritime trade of the Province continued to suffer from the general disorganization of industry and shipping caused by the war. The value of the total trade in private merchandise rose by 27 per cent., but this was due to the higher level of prices, more especially in the case of imported cotton yarn and piece-goods, and the volume of trade decreased substantially. A prominent feature of the foreign import trade was an increase of 76 per cent. in the value of importations from Japan,

which country now claims 22 per cent. of the total private foreign imports. Abnormal factors in the export trade were the large purchases of the 1918 crop of rice and beans made on behalf of the Royal Commission on Wheat Supplies and the introduction of a food control in India, in which the Burma rice crop of the year 1919 played an important part. The policy adopted in respect of the 1919 crop was to fix a maximum export price and to require the licensing of all exports. The bulk of the crop was reserved to meet the strong Indian demand, due both to the failure of the monsoon in India and to the fact that Indian stocks had been depleted to provide food for soldiers engaged in the war. The value of exports of rice to India accordingly rose from Rs. 5,00 lakhs to Rs. 8,52 lakhs, while that of exports to foreign countries rose to a considerably less extent, namely from Rs. 13,53 lakhs to Rs. 16,42 lakhs. Though this system of control undoubtedly prevented millers and brokers from deriving abnormal profits from the world shortage of cereals to the extent they otherwise might, it undoubtedly prevented undue inflation and speculation at the expense of the domestic as well as the foreign consumer, while the export price was fixed by the Controller at a sufficiently high level to leave cultivators a substantial margin of profit.

As in the previous year the work of the Public Works Department was much hampered by the absence of many officers employed on military duty, and by the need for economy. Good progress was, however, made with new roads opening up the Myitkyina and Putao Districts, and communications in the Tavoy District were considerably improved in the interests of the tin and wolfram mining industry. Satisfactory progress was also made in many districts with the replacement of temporary wooden bridges by permanent structures and with the reclamation of towns in the Delta of the Irrawaddy River. The earthwork on a section of the proposed railway between Pyinmana and Magwe was completed by Turkish prisoners of war, and the same agency was also employed on an extension of 18 miles of the Southern Shan States Railway. A reconnaissance survey to determine the best alignment for a railway on the metre gauge to serve the mines of the Burma Mines Company at Namtu was carried out, and various projects for branch lines in the Tenasserim Division were discussed. The completion of the Ye-u Canal in the Shwebo District resulted in an increase of over 30,000 acres to the irrigated area of the Province, which now slightly exceeds 300,000 acres irrigated by major irrigation works and 1,100,000 acres irrigated by minor irrigation works.

The principal industries of the Province continued to be rice-milling, sawmilling, petroleum refining and the transport industries, all of which derive their main supplies of labour from the immigrant Indian population. Conditions were generally unfavourable to any great industrial development, and the attention of Government was chiefly directed to the improvement of existing factories from the point of view of sanitation and safety. Minor village industries also languished, and weaving suffered from the high price of yarn. Investigations with a view to the encouragement of these village industries were, however, undertaken, and an interesting result obtained was the rediscovery of the lost art of producing red-figure black pottery similar to the ancient Greek black pottery.

The output of both silver and lead from the mines worked by the Burma Mines Company at Bawdwin in the Northern Shan States increased considerably and amounted to just under two million ounces of silver, and approximately 19,000 tons of lead. The wolfram-mining industry received a severe set-back on the Munitions Board in England, after the conclusion of the armistice, withdrawing its guarantee to pay a fixed price per unit and estimates of the compensation payable to mine-owners on this account are in course of preparation. The high price of tin, on the other hand, led to considerable activity in tin mining in the Tavoy and Mergui Districts, where this mineral is chiefly found. The output of petroleum increased slightly to 275 million gallons, an important feature of the year being the development and equipment of a promising new oil-field in the Upper Chindwin District.

The most important event in the forest administration of the year was the decision finally arrived at to introduce a new system of forest management. Under this revised system concentrated exploitation both of teak and other timber

to is be followed by complete regeneration by elastic methods varying with the requirements of each type of forest. The numerous problems arising out of this new policy, such as increase of staff, the organization and education of a labour force, the erection of Government saw-mills, the establishment of markets outside the Province and sylvicultural research, were under consideration. Owing to lack of freight to India, the outturn of teak declined, but that of fuel increased considerably, owing to the continued scarcity of coal.

11. The gross revenue receipts of the Province for the year of report rose from Rs. 12,40 lakhs to Rs. 14,64 lakhs. The increase was common to the receipts credited to Imperial as well as to those credited to Provincial Funds, the former rising from Rs. 4,50 lakhs to Rs. 5,43 lakhs and the latter from Rs. 5,56 lakhs to Rs. 6,49 lakhs. Receipts under the head "Land Revenue" rose by Rs. 37 lakhs, but this was mainly due to the realisation of arrears, the collection of which had been suspended, owing to the unsatisfactory condition of the paddy market in the previous year. Collections of land revenue proper in the current year in fact fell slightly, though this decrease was counterbalanced by an improvement in the fishery revenue. The salt revenue rose substantially, owing to an increase in the output of local salt, which reached the highest figure ever recorded, and for the first time contributed more than half the total revenue derived from this source. An improvement of Rs. 28 lakhs in Customs revenue was due partly to general enhancement in the value of all commodities, partly to the shipment of rice on account of the Wheat Commission and partly to larger receipts from excise duty on motor spirit and tobacco. Receipts from income-tax rose by no less than Rs. 21 lakhs, mainly on account of more accurate assessment in Rangoon, and also on account of the assessment of super-tax. Gross expenditure increased from Rs. 8,68 lakhs to Rs. 9,32 lakhs, the increase being shared by both Imperial and Provincial heads of expenditure. The operations against the Kuki rebels entailed considerable extra expense, and larger grants were given to local bodies for education. A portion of the increased expenditure was productive, such as the amount spent on irrigation and on departmental extraction of timber. The need for economy was, however, kept in mind, and expenditure on communications and buildings was restricted to a minimum, in spite of the urgent necessity of large allotments for these purposes.

The new notes of the Re. 1 and Rs. 2-8 denominations were successfully put into circulation and these notes at the end of the financial year supplied more than 11 per cent. of the total volume of currency. Their introduction was, however, attended by a marked depreciation of paper currency throughout the Province. This at one time caused considerable anxiety, owing to the severe drain on the Rangoon Currency Office and the necessity for maintaining the convertibility of Government paper. Appropriate measures were taken to alleviate possible hardship and to check speculation, and the demand for small coin in exchange for the one-rupee note is now being fully met both at Rangoon and at the District Treasuries.

12. Burma did not escape the universal epidemic of influenza, and the year was one of the most unhealthy ever experienced. The provincial death ratio rose to the extremely high figure of 39·59 per thousand of the estimated population, as compared with the previous five years' mean of 25·28. This enormous excess mortality was accompanied by a substantial fall in the birth rate, owing to the particularly harmful effects produced by influenza upon women during pregnancy and child-birth. The disease was first recognized in Rangoon in June 1918, and by the end of the year had spread to every part of the Province, including the remotest corners of the Shan States and the Chin Hills. The mortality was everywhere very heavy, and it is estimated that the total number of deaths from this cause in the whole Province was not less than 200,000. All measures possible with a depleted medical staff were taken to cope with the disease, special hospitals were opened in Rangoon, special dispensaries for the free distribution of medicine were equipped, and in Cantonments a certain measure of segregation was successful; but, owing to the nature, sudden onset, and pandemic rapidity of the disease, it was impossible to check the spread of the infection. Plague,

cholera and small-pox also claimed more victims than in the previous year, but in the case of these diseases, it was possible to take effective preventive measures, and the mortality from these causes was kept within reasonable limits. There was a satisfactory extension of voluntary effort directed to the reduction of infantile mortality, but much remains to be done. Progress was made with the scheme for providing much-needed additional accommodation for lunatics.

13. The most important educational event of the year, namely the framing of a scheme for the University of Rangoon, has already been mentioned, but in other respects also the year was signalised by other measures making for better educational organization. Improvements in the curricula of Anglo-Vernacular High Schools and of European Schools were introduced. New principles and procedure with reference to the recognition of such schools were adopted, and the whole system of educational finance, in so far as it affects Aided and Anglo-Vernacular and European Schools, was thoroughly overhauled. By the constitution of Advisory Boards to discuss and make recommendations relating to the curriculum and examination of Secondary Schools, a step was taken towards the co-ordination of Secondary and Higher Education and the Department was strengthened by a closer association with non-official skill and experience. A new system, designed to simplify the finance and control of Vernacular Schools, was under consideration during the year. Owing to the economic effects of the war, the attendance of pupils in the lower primary vernacular standards fell, and there was a further decrease in the number of Monastic Schools. On the other hand, there was a slight increase in the number of pupils attending Secondary Schools, and also in the number of students on the rolls of the Government College and of the Judson College at Rangoon, both of which are affiliated to the Calcutta University.

14. From the above narrative it will be seen that in nearly every department of the administration the after-effects of the war continued to be felt, and that normal conditions have not yet been restored. The administration was hampered by a serious shortage of officers and by financial stringency, and the high price of imported commodities affected all classes of the community. For the cultivating classes, which form the vast majority of the population, the year was not a prosperous one, influenza levied a heavy toll, the crops were indifferent, and there was a serious recrudescence of rinderpest. Though circumstances were thus unfavourable to sweeping changes, the year was by no means barren of results, but, on the contrary, was one of active preparation, not only for the many new developments arising out of Constitutional Reform, but also for progress in other directions, when more settled conditions permit.

The prospects before Burma are bright, but it needs the co-operation of all classes of the community, if full advantage is to be taken of them. It would be deplorable if this co-operation were to be jeopardised by the introduction of imported political strife so foreign to the nature of the people of the country, and so inimical to their true interests.

PART II.

DEPARTMENTAL CHAPTERS.

NOTE.—The departmental reports and other references on which this *Report on the Administration of Burma* is based, are noted at the beginning of each chapter. The departmental reports do not all cover the same period. The Reports on the Administration of Civil and Criminal Justice, the Police, Prisons, the Registration Department, the Salt Revenue, the Measures adopted for the Extermination of Wild Animals and Poisonous Snakes, Lunatic Asylums, the Report of the Chemical Examiner, the Report on the Working of the Indian Factories Act, 1911, and the Resolution on the Reports on Village Administration deal with events which took place within the calendar year 1918; the Shan States, Chin Hills and North-Eastern Frontier Reports, the Land Revenue, Land Records and Forest Administration Reports, the Season and Crop Report, the Report on the Working of the Co-operative Societies Act and the Report of the Department of Agriculture are concerned with the agricultural year from the 1st July 1918 to the close of June 1919. All other reports cover the twelve months of the official or financial year that ended on the 31st March 1919.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

REFERENCES—

Report on the Administration of the Shan and Karenni States for the year ended the 30th June 1919.
Report on the Administration of the Chin Hills for the year ended the 30th June 1919.
Report on the North-Eastern Frontier for the year ended the 30th June 1919.
Season and Crop Report of Burma for the year ended the 30th June 1919.
Land Records Administration Report of Burma for the year ended the 30th June 1919.
Report on the Civil Veterinary Department (including the Insein Veterinary School), Burma, for the year ended the 30th June 1919.
Report on the Sanitary Administration of Burma for the year 1918.

PHYSICAL.

Physical Features of the Country, Area, Climate and Chief Staples.

For information on this subject reference should be made to paragraphs 1 to 8 of the *Report on the Administration of Burma* for the year 1911-12.

POLITICAL.

Historical Summary.

For information on this subject reference should be made to paragraphs 9 to 18 of the *Report on the Administration of Burma* for the year 1911-12.

Form of Administration.

For information on this subject reference should be made to paragraphs 19 to 38 of the *Report on the Administration of Burma* for the year 1911-12 and to paragraph 1 of the *Report on the Administration of Burma* for the year 1914-15.

CHAPTER I. PHYSICAL AND POLITICAL GEOGRAPHY.

Character of Land Tenures: System of Survey and Settlement.

For information on this subject reference should be made to paragraphs 39 to 55 of the *Report on the Administration of Burma* for the year 1911-12.

Civil Divisions of British Territory.

For information on this subject reference should be made to paragraphs 56 to 68 of the *Report on the Aaministration of Burma* for the year 1911-12 and to paragraph 2 of the *Report on the Administration of Burma* for the year 1914-15.

Details of the last Census: Tribes and Languages.

For information on this subject reference should be made to paragraphs 69 to 76 of the *Report on the Administration of Burma* for the year 1911-12.

Changes in the Administration.

The Lieutenant-Governor.

1. The Hon'ble Sir Reginald Henry Craddock, K.C.S.I., I.C.S., was Lieutenant-Governor of Burma throughout the year.

Administrative territorial changes.

2. The headquarters of the Upper Chindwin District, together with the headquarters of the Kindat Subdivision and Township, were transferred from Kindat to Mawlaik, with effect from the 6th May 1918. The Tharrawaddy District, which formerly consisted of the six townships of Tharrawaddy, Minhla, Letpadan, Gyobingauk, Nattalin and Monyo, was rearranged and split up into the nine townships of Tharrawaddy, Minhla East, Minhla West, Letpadan East, Letpadan West, Gyobingauk, Nattalin Monyo and Zigôn, with effect from the 18th May 1918. Minor rectifications of township boundaries were also sanctioned in the Pegu, Thatôn, Toungoo, Myingyan, Ma-ubin, Minbu and Magwe Districts. Owing to the disappearance of a natural boundary, the limits of Rangoon Town were redefined with the previous sanction of the Governor-General in Council. To commemorate the long and distinguished service of the Hon'ble Mr. W. A. Hertz, C.S.I., on the North-Eastern frontier, the headquarters of the Putao District were renamed Fort Hertz. Occasion was also taken to reintroduce the names Fort Harrison and Fort Morton to designate the posts at Sadôn and Sima in the Myitkyina District. These names commemorate the services of distinguished frontier officers in the years 1892 and 1893, but their use in official correspondence was temporarily abandoned for political reasons, which no longer exist. An additional Public Works Circle of Superintendence, known as the Delta Circle, was constituted with effect from the 22nd July 1919. This new circle took over the Embankment and Môn Canals Divisions and the Pegu-Sittang Canal Subdivision from the Irrigation Circle and the Bassein and Myaungmya Divisions from the Pegu Circle. In the Rangoon Circle of Superintendence the Hanthawaddy Division was abolished, and a Rangoon Division reconstituted and a new Lighthouse Division formed with effect from the 1st May 1918. Other transfers of Public Works Subdivisions affecting the Meiktila, Toungoo, Pegu and Amherst Divisions were also made.

Additions to and changes in the administrative staff.

3. The cadre of the Provincial Civil Service was enlarged by two appointments in the fourth and sixth grades, respectively, consequent on the inclusion in that service of the two senior appointments of Assistant Registrar of Co-operative Societies. Owing to the continued employment of a large number of officers of the Civil Police on military duty, the additional temporary appointment of two Deputy Inspectors-General and eight Deputy Superintendents of

Police was sanctioned for the period of the war and for six months after its conclusion. The temporary appointment of an Archæological Assistant for five years was sanctioned with effect from the 12th September 1918. Consequent on the formation of the new Delta Circle, an addition of one Superintending Engineer was made to the cadre of the Provincial Establishment.

Relations with Tributary States and Frontier Affairs.

(*i*) *Shan and Karenni States.*

[*Southern Shan States*: 37 *States, area* 36,154 *square miles, population* 836,574, *tribute Rs.* 2,61,000; *Karenni*: *five States, area* 4,280 *square miles, population* 63,628, *tribute Rs.* 5,350; *Northern Shan States*: *five States, area* 16,594 *square miles, population* 480,390, *tribute Rs.* 1,65,500; *Mong Mit*: *area* 3,561 *square miles, population* 44,708, *tribute Rs.* 20,000; *Hsawnghsup (Thaungdut), area* 840 *square miles, population* 7,296, *tribute Rs.* 400; *Singkaling Khamti (Zingalein Kanti), area* 2,000 *square miles, population* 1,924, *tribute Rs.* 100; *Khamti Long (Kanti gyi) or Bhor Khamti, area* 200 *square miles, population (approximately)* 6,221, *tribute Rs.* 2,500 *(approximate).*]

The Southern Shan States.

4. The chief features of the year were the high price of all commodities and an abnormal amount of sickness with a heavy death roll, including one Chief, Hkun Num, K.S.M., *Sawbwa* of Möngpan. Though lacking educational and other advantages, the death of this Chief is to be regretted, as he was a good administrator and a man of sterling character, who enjoyed the respect and affection of his people. In Möng Nawng State there has been a marked and welcome improvement, and, generally speaking, the administration of the majority of the Chiefs was distinctly creditable. Unsatisfactory administrations were, however, those of Yawnghwe, where disregard of the sanctioned budget caused financial embarrassment, of Hsahtung, of Lawksawk and of some of the Minor Myelat States. In Möng Hsu also the conduct of the *Myosa* was such as to render advisable a further extension of his period of probation.

A sum of Rs. 4,10,000 was subscribed by the States to the Indian War Loan of 1918. Recruiting for the Burma Rifles continued and 272 men were obtained for that corps and 14 for the Burma Sappers and Miners. Khilats signed by the Lieutenant-Governor were presented to the *Sawbwa* of Yawnghwe and the *Myosa* of Möng Kung in recognition of loyal help rendered during the war.

The condition of communications with Yünnan showed no improvement, and traders, owing to the disturbed state of the trans-frontier roads, had to travel in large and well armed parties. Considerable dislocation was caused in Keng Hung by a Muhsö rebellion, which the Chinese eventually succeeded in repressing with the aid of a well-known brigand leader. Though no conference with Chinese officials took place, friendly relations were maintained, and cordial intercourse with the authorities of French Indo-China and Northern Siam continued.

In addition to a detachment of 200 men furnished for the Kuki operations, the Military Police battalion supplied a further 89 volunteers for active service, making a total, since the outbreak of war, of 877 men out of a sanctioned strength of 1,130 men. The number of cases reported to the Government Civil Police was 372 as against 379 the previous year, but most of these cases were of a very petty nature. Good work was done at Kalaw in verifying the antecedents of Indian strangers. The work of the State and village police was somewhat indifferent and calls for no remark. There was a substantial decrease in all forms of crime, the total number of true cases reported in the year falling from 1,210 in 1917-18 to 1,083 in the year of report. Violent crime fell from 45 to 39 cases, including 29 cases of murder and culpable homicide. Chinamen in the Kēngtūng Subdivision were, as usual, the victims and the perpetrators of the worst crime of the year, namely the murder of three muleteers and the looting of Rs. 20,000 worth of property from a caravan.

The number of civil suits filed increased from 711 valued at Rs. 1,18,160 to 721 valued at Rs. 1,42,585 and of suits disposed of from 695 to 719. Two-thirds of the suits were for less than Rs. 100 and only one was for over Rs. 5,000. Two requests for extradition were received from the Chinese authorities, but in

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one case the witnesses failed to identify the men arrested and in the other the criminals escaped to Siam. One request was also received from the Siamese authorities, but could not be complied with, as the man wanted was not to be found.

The rainfall was ill-distributed, in the early part of the season much damage was done by floods, and heavy rain at harvest time further reduced the outturn of paddy. The season was also unfavourable for wheat and tobacco, the yield of the latter being little more than half the normal. On the other hand, the cotton and potato crops were good, and, in spite of considerable extensions of cultivation, a fair price was obtained. Oranges were plentiful, but, owing to influenza, a large part of the crop was wasted. The abnormally high price of opium led to considerable extensions of cultivation, a portion of which took place in prohibited areas and was therefore destroyed. Elsewhere much planting was done in unsuitable soil and many cultivators were prostrate with influenza when the plants needed daily attention and the result was that the outturn of opium was no greater than in the previous year. The Camphor estate in Lawksawk State did well and distilling operations will shortly start.

The year was as unhealthy for cattle as it was for man. No State escaped rinderpest and in some the mortality was heavy. There were also serious losses from anthrax and surra and the cost of mule transport increased by 20 to 30 per cent.

There was some recovery in the output of teak, owing to increased activity on the part of European firms, and the forest revenue from all sources rose from Rs. 0·67 lakh to Rs. 1·01 lakhs, enabling the division to show a surplus of Rs. 4,955 as compared with a deficit of Rs. 26,944 in the previous year.

Thirty-four applications for prospecting licenses, principally for wolfram, were received during the year and 23 were granted. Three mining leases, all for silver lead, were in force. Owing to the fall in price, the output of lead decreased from 46,400 to 34,500 viss, of which 19,000 viss were exported. A small quantity of wolfram, but no silver, was exported.

A sum of Rs. 2·88 lakhs was spent by Government on public buildings at Kalaw, Aungban, Yawnghwe and Taunggyi as well as on roads and bridges. The States spent Rs. 2·57 lakhs on public works from revenue and Rs. 1·09 lakhs from remissions of tribute granted for this purpose, making a total of Rs. 3·66 lakhs as against Rs. 3·76 lakhs in the previous year. The bulk of the money was spent on roads and bridges, and communications have greatly improved.

The total receipts of all States during the year were Rs. 13·19 lakhs and the expenditure was Rs. 12·69 lakhs. The revenue exceeded that of the previous year by Rs. 0·35 lakh and expenditure was greater by Rs. 0·49 lakh.

The year was abnormally unhealthy, malaria and influenza were rife, sickness was almost universal and there were many deaths. The number of patients treated by the Civil Surgeon, Taunggyi, was 45,500 out-door and 1,729 in-door. The Kalaw Railway Hospital had 10,225 out-door and 106 in-door patients, or considerably more than last year. The hospitals at Loimwe and Kēngtūng under the supervision of the Civil Surgeon, Loimwe, had 14,873 out-door and 931 in-door patients, also a substantial increase on last year's figures. Good work was done also at Kēngtūng by the nursing sisters of the Roman Catholic Mission and at Mōng Nai by Mr. S. C. Dey of the American Baptist Mission, the latter's valuable services during the influenza epidemic being recognised by a special donation of Rs. 1,000 from the Mōng Nai *Sawbwa*. Owing to unfavourable circumstances, there was a further decline from 15,098 to 11,518 in the number of operations performed by the vaccination staff under the Civil Surgeon, Taunggyi, while at Loimwe the number increased slightly from 2,756 to 2,898. The Treasury issued 452 five-grain and 639 one-grain packets of quinine, but the supply was quite inadequate to meet the demand. Considerable improvements have been effected in the sanitary condition of the headquarter towns of most States. The popularity of Kalaw as a minor hill station has been maintained and its development has been satisfactory. Two churches and thirty-two houses were built during the year and the number of completed houses in the European area is now fifty-one.

All the mission schools and many of the lay schools supported by the States are reported to have done good work. There was an increased attendance and also an improvement in the number of passes secured. The cause of education, however, sustained a severe loss by the death of Father Pirovano, whose work lay chiefly among the Brès, Padaungs and Karennis. The Teachers' Training Class at Yawnghwe has passed out its first batch of pupils and an additional Sub-Inspector was appointed during the year and posted to Kĕngtŭng. There were 84 pupils in the school for the sons of Shan Chiefs and 61 passed their annual examinations in the various standards. The school was fortunate enough to escape influenza and the general health of the boys was good.

The Karenn States.

5. In spite of indifferent crops in many places and a good deal of disease, the general condition of the Karenni States was, on the whole, satisfactory, and their combined revenue amounted to Rs. 2,70,846, which is the highest figure ever recorded. A sum of Rs. 1,30,166 was contributed to the Indian War Loan of 1918. No meetings with Siamese officials took place during the year, but friendly relations were maintained and the border was quite peaceful.

On the death of Hkun Maung Yo, the son and recognised heir of the late *Myosa* of Naungpale, a dispute arose as to the succession. The Shans favoured Hkun Hkam Leng, a brother of Hkun Maung Yo, but were bitterly opposed by the Karen inhabitants of the State, who put forward a woman of the name of Bya Du. The dividing line being racial and religious, and neither party being disposed to give way, it was eventually decided to place the Shan portion under the administration of the *Sawbwa* of Kantarawadi and the Karen portion under that of the *Myosa* of Bawlakè. This is a temporary arrangement which seems to have met with general acceptance. The question is to be reconsidered after a year's experience of the present arrangement.

The results obtained by the State Police were not altogether satisfactory, though the arrests of some elephant thieves at Pasaung and of two absconders from Papun with stolen property were distinctly creditable pieces of work. Reported crime increased from 130 to 156 cases, including one case of murder and one of dacoity with murder, both of which ended in conviction. Cattle thefts increased from 30 to 60 and in only six cases was a conviction obtained. Though the work of the Courts was good, only 73 cases came before them, the balance of 83 cases being undetected.

The number of Civil Suits filed during the year increased from 43 valued at Rs. 18,081 to 56 valued at Rs. 25,579. Only one was for over Rs. 5,000 and the great majority were for small money claims. No demands for extradition were made or received.

The absence of rain during October and heavy falls at harvest time greatly reduced the outturn of paddy, wheat was a poor crop, sessamum did badly except in Kantarawadi and the agricultural season was distinctly below the average. Rinderpest also carried off many cattle, and foot-and-mouth disease was somewhat widespread. The supply of marketable teak in the Karenni forest is nearing exhaustion, the forests of Bawlakè State were closed to workers other than the *Myosa* and his near relations, and it will shortly be necessary to close large areas in Kantarawadi. It is hoped, however, that the loss in teak may to some extent be set off by increased revenue from lac, cutch and other minor forest produce. Some 71,000 viss of lac and 37,000 viss of cutch were exported during the year. The teak plantations established two years ago continued to do well and further plantations are projected. In spite of labour difficulties and landslips, the Mawchi Mines, Limited, dealt with 27,243 tons of ore and obtained 738 tons of wolfram and tin concentrates as compared with 704 tons extracted from 26,358 tons of ore in 1917-18. No prospecting licenses were issued, nor were any fresh discoveries of minerals made.

The sum of Rs. 53,410 was spent on public works from revenue and Rs. 2,500 from tribute remitted. Good road work was done and for the first time it was possible to reach Loikaw from Taunggyi by motor car. The residence of the *Sawbwa* of Kantarawadi was at length completed.

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Though the total revenue reached Rs. 2·71 lakhs, the highest figure ever recorded, the receipts were swollen by exceptional items, such as Rs. 50,000 of arrears recovered from a timber lessee, and it must be recognised there are lean years in prospect for all these States, owing to the exhaustion of the forests. The finances are, however, now on a sound footing and the reserve funds of the two larger States total Rs. 2·40 lakhs.

The civil hospital at Loikaw treated 5,476 out-door and 157 in-door patients, the numbers being much the same as in the previous year. Mrs. Johnson of the American Baptist Mission distributed medicine to 1,678 sick Karens and also rendered valuable assistance during the influenza epidemic. There was a further decline in the number of vaccinations and only 1,873 operations were performed as against 4,685 in the previous year.

Fifty schools were dealt with by the Education Department as against 46 in 1917-18. There was a proportionate increase in the number of pupils from 940 to 1,031 and there are signs that Karens are beginning to take an increased interest in education.

The Northern Shan States.

6. In the Northern Shan States the year was, on the whole, uneventful and the people were prosperous, though there were severe epidemics, first of cholera and then of influenza. The several States subscribed Rs. 2·51 lakhs to the Indian War Loan of 1918 and large contributions were made to various War Charities. Though sickness interfered considerably with recruiting for the Shan Company of the 4/70th Burma Rifles, some seventy recruits had been obtained, when the signature of the armistice put a stop to further enlistments.

The death of Sao Som, *Sawbwa* of Manglun, from influenza, was a serious loss to Government. He was a man of considerable force of character, thoroughly loyal to Government and was rapidly acquiring influence and prestige amongst the unadministered States. On his death bed he nominated his brother Sao Hkanan as his successor and this was agreed to by the heads of tributary sub-states in Manglun and by Government, with the proviso that Sao Hkanan shall be on probation for two years. A temporary arrangement has been come to in the Wa States between the Motle Chief and the Mothai *Myosa* pending final settlement of the dispute by Government. Very useful work was performed by a Kachin patrol, which was utilised to guard the frontier from Kapna to Pawwang during the opium collecting season, a period when this portion of the border is infested with bad characters. The usual cold weather military police post was maintained at Kokang and prevented all raids. On the Chinese side the *Taoyin* co-operated and a dangerous gang of dacoits was attacked and dispersed by Chinese soldiers. The usual frontier meeting was held at Nawngma and thirty-nine out of fifty-eight pending cases were disposed of, China paying Rs. 2,943 and the Northern Shan States Rs. 1,680 by way of compensation. A meeting was held between Kachin Chiefs on the British and Chinese sides of the border and friendly relations were established.

Agricultural advances were made in several States and the survey of one irrigation scheme has been completed, while two further projects are under examination. A detailed scheme for the survey by professional agency of the tea gardens in Tawngpeng is in course of preparation. The funds will be provided by the *Sawbwa* and the survey will ensure the adequate assessment of these gardens, which at present do not pay their fair share of taxation.

The sanctioned strength of the Military Police Battalion remained at 734, but the actual strength was 932, owing to the return of volunteers from active service and continuance of recruiting till December. Proposals for the permanent increase of the sanctioned strength in conformity with the scheme for the formation of a separate frontier force are under consideration. The discipline of the men and their relations with the people of the country were satisfactory. The battalion unfortunately did not escape the prevailing influenza epidemic and admissions to hospital doubled.

The sanctioned strength of the Government Civil Police-force was increased by 16 to 128. Conduct and discipline were good and a training school at Lashio has been administratively sanctioned. The number of cases dealt with and the

number of convictions obtained declined slightly from 327 to 305 and from 109 to 104, respectively. Nine violent crimes were reported and convictions were obtained in three cases. Twenty-one cases were reported as cattle theft, but the majority were mere cases of straying and in only one case was a conviction obtained.

The State Police of the various States did well and there was a distinct improvement in detection and in the percentage of stolen property recovered.

The Village Police, on the whole, continued to do good work. The number of cases dealt with by Criminal Courts of all classes fell from 1,574 to 1,435, the decrease being mainly due to the smaller number of Chinese immigrants looking for work with the Burma Mines Company at Namtu. On the whole, in spite of the higher cost of living, crime did not increase and was satisfactorily dealt with. The number of civil suits filed in Government courts rose from 116 to 149, while those in State courts declined from 362 to 283. Out of a total of 432 suits filed, in 402 cases the value of the relief claimed was under Rs. 500. One claim for extradition was made by the Chinese authorities and the men wanted have been arrested and await identification.

The agricultural season was, generally speaking, a good one, and the rainfall was sufficient and well distributed. A bumper crop of paddy was obtained in several States, but the price of rice rose to abnormal heights in North and South Hsenwi, partly owing to increased demand from Chinese villagers and partly owing to the superior attractions of opium causing a decline in the area under paddy. Cotton was a normal crop everywhere, but sessamum was a failure and led to a substitution of groundnut for sessamum oil among the poorer class. Oranges were a moderate crop, but tea did well and fetched higher prices than in the previous year. Tobacco and potatoes were indifferent, but wheat cultivation made a good start. There was an enormous increase in the cultivation of opium and the number of households engaged in poppy growing increased from 18,026 to 20,760. The outturn, however, was extremely poor, owing to drought and a pest of caterpillars, and did not exceed last year's production. The price also fell heavily from an average of Rs. 250 to Rs. 100 per viss, and it is hoped this disastrous experience may lead to a restriction of the area under this crop in the future.

The influenza epidemic caused a serious shortage in the supply of labour as well as a sharp rise in rates. The Burma Mines Company only succeeded in obtaining 2,000 men as against between 5,000 to 10,000 in normal conditions, and the programme of the Public Works Department had to be drastically cut down.

The total forest revenue of the year increased from Rs. 70,799 to Rs. 1,26,280 and expenditure also rose from Rs. 35,213 to Rs. 44,463. Some 746 tons of unconverted and 13,550 tons of converted timber were supplied to the Munitions Board and the Burma Mines continued to extract fuel from the Panghai Reserve under purchase contracts. Experiments with a view to the extraction of resin from certain pine areas in Mong Tung and Tawngpeng were initiated.

Though considerably inconvenienced by the shortage of labour, owing to the influenza epidemic, the Burma Mines Company carried out a great deal of development work, the erection of a new mill was nearly completed and numerous other improvements to the plant, railway track and accommodation were carried out. The output was very slightly below that of last year and amounted to 17,997 tons of refined lead and just under two million ounces of silver. Progress has been made with the construction of a Hydro-Electric Power Station and the preliminary survey for the extension of the Burma Railways Company's metre-gauge from Tapalai to Namtu has been completed. The Man-mak-lang mine furnished 23,613 tons of iron ore and work on the Namma coal field concession has started in earnest.

Of the total expenditure of Rs. 3·85 lakhs on public works, Rs. 2·74 lakhs were paid to the Public Works Department and Rs. 1·11 lakhs were expended by State or other agency. Much useful work on roads and mule tracks was done in all States, more especially in Tawngpeng and North Hsenwi. Much, however, remains to be done, more particularly in Hsipaw, where increased expenditure on the upkeep of existing roads will be necessary in the near future.

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In spite of the ravages of cholera, influenza and, to a lesser degree, of small-pox, the people were, on the whole, prosperous. A feature of the year has been the sharp rise in the price of all local products, except opium, and everybody with produce to sell has made large profits.

Outbreaks of cattle disease were milder than in previous years and there were no indications of any decline in the general standard of living, though the increase in the price of imported articles has stimulated local industries, such as weaving, pottery and boot and shoe making. The mulberry garden at Lashio has been much improved and a start has been made with sericulture. Mule breeding continues to make quiet progress in North Hsenwi. Interesting experiments have been made on worn-out *taungya* land with promising results.

In Hsipaw, the actual receipts of revenue declined from Rs. 6·28 lakhs to Rs. 6·07 lakhs, but the decrease is nominal, as last year's receipts included large arrears of tea revenue. By strict economy the expenditure was reduced from Rs. 5·77 lakhs to Rs. 5·63 lakhs. The finances of the State are in a satisfactory condition, but there will be heavy calls on them in the near future. The allowance of the *Sawbwa* was increased to Rs. 6,000 per mensem. In Tawngpeng, receipts increased from Rs. 3·77 lakhs to Rs. 4·13 lakhs and the balance at the credit of the Public Works Fund now amounts to Rs. 5·33 lakhs. In North Hsenwi, receipts were Rs. 3·71 lakhs as compared with Rs. 3·98 lakhs in 1917-18, but the decrease is not real, as last year's receipts were swollen by arrears of opium revenue. Remissions were granted in certain areas, owing to floods and cholera. Expenditure increased from Rs. 3·09 lakhs to Rs. 3·57 lakhs, owing to an investment of Rs. 70,000 in War Bonds. There was a large outstanding of nearly a lakh on account of opium revenue, but it is expected the greater part of this will be recovered. In South Hsenwi, receipts increased from Rs. 1·74 lakhs to Rs. 2·03, lakhs while expenditure remained the same at Rs. 1·66 lakhs.

The year was the most unhealthy known for a generation and there was a substantial increase of patients at nearly all hospitals and dispensaries. By far the most fatal disease was influenza, and then cholera, plague and small-pox in order of severity. Considerable attention was paid to the sanitation of Namtu, which is now satisfactory, and a sanitary and conservancy scheme will shortly be brought into force at Hsipaw and Kyaukme at an estimated cost of Rs. 40,000. The total number of vaccinations performed was 10,105, of which 7,550 were successful. More vaccinators are being trained and it will then be possible to protect areas in which vaccination has hitherto been practised only spasmodically. Some 5,000 grains of quinine were distributed, but the demand greatly exceeded the supply.

Two Anglo-Vernacular Schools are in process of construction at Namtu and Lashio, but that at Hsipaw had to be closed, as the American Baptist Mission was unable to secure a suitable resident superintendent. Vernacular schools numbered 52, the same as last year, but owing to sickness and high cost of living, the number of pupils declined slightly from 2,179 to 2,091.

The problem of the future administration of the Northern and Southern Shan States has continued to engage attention, and an officer has been deputed to proceed to the Federated Malay States to study their administration and to ascertain how far the system there followed might be made applicable to the conditions of the Shan States.

Other Shan States.

7. In Möngmit State the year was uneventful and good work was done by the Chief, who takes a keen personal interest in the administration of the State. The revenue increased by Rs. 57,000 to Rs. 2·41 lakhs, partly owing to a good paddy crop and partly owing to the inclusion of arrears from last year. The expenditure increased slightly to Rs. 2·27 lakhs and there was a substantial closing balance of Rs. 87,000, exclusive of Rs. 40,000 invested in War Bonds. The rainfall was adequate and all crops were satisfactory, except tobacco, which was damaged by floods. Influenza was prevalent here as elsewhere and the hospital attracted 500 patients more than last year. Cattle disease was moderate.

The opening of a new police-station at Kota and of an outpost at Kunchaung led to a considerable increase in police expenditure. The total number of cases

reported was 131, which is slightly below the average. The great majority of these were extremely petty and there was only one violent crime, which ended in conviction. The number of true cases tried rose from 66 to 100 and the percentage of convictions fell from 69 to 66, but the work of all courts was good. There was a slight decrease from 113 to 102 in the number of civil suits dealt with and a remarkable decrease in their value from Rs. 22,701 to Rs. 9,621. Expenditure on public works increased largely from Rs. 22,848 to Rs. 40,482. The *Sawbwa* has shown much energy in improving the communications of his State and several useful bridges were built.

In the Kodaung Hill Tracts, there was much mortality from influenza, and the crops were indifferent and some difficulty was experienced in the collection of revenue. With the help of Dr. Harper of the American Baptist Mission at Namkham an irritating boundary dispute was settled and the same gentleman also contributed materially to the settlement of a serious case of desecration by Christian Kachins. Crime was stationary, except for one undetected case of murder, which is the only case of violent crime for five years. Forest offences increased, but it is possible a solution may be found in the establishment of forest villages. A sum of Rs. 3,134 was spent in rewards for the maintenance of roads as compared with Rs. 1,420 last year. The maximum number of registrable guns was raised from 240 to 542, which is more in accordance with the number actually held. Forty new guns were licensed and two unlicensed guns were seized. There are no schools in the Kodaung area, but two Kachin teachers have been secured and it is hoped to open two schools shortly.

The termination of the Kuki operations and the settlement of the Somra Tract and the removal of the Kukis from the Thaungdut State will relieve the *Sawbwa* of that State of a fruitful source of trouble. The frontier of Singaling Kanti has been undisturbed by raids, though collisions have occurred between the Nokan and Ponnyo Nagas. The year in both these small States was in other respects quite uneventful.

(*ii*) *The Chin Hills.*

[*The Chin Hills proper, area approximately* 8,000 *square miles, population* 119,556, *the Pakôkku Hill Tracts, area approximately* 2,200 *square miles, population* 17,128; *Hill District of Arakan, area* 1,500 *square miles, population* 22,234; *and tracts in the Upper Chindwin, Akyab and Kyaukpyu Districts.*]

8. The affairs of the Chin tribes on the Assam-Burma border are at present administered by no less than four officers, namely the Superintendent of the Chin Hills and the Commissioners of the Sagaing, Magwe and Arakan Divisions. To remedy this absence of co-ordination, enquiries are proceeding to ascertain to what extent greater unity of administration can be effected by the creation of a frontier Division to include all the districts on the Northern and North-Eastern frontiers of Burma. A step towards unity of administration has been taken by placing the Chin Hills within the jurisdiction of the Commissioner, Sagaing Division.

The outstanding feature of the year has been the successful conclusion of the operations conducted against the rebel Kuki tribes in the Somra Tract to the north-west of the Upper Chindwin District and in the Manipur State. The three military police columns operating in the Somra Tract left their base in November 1918 and opposition was encountered about the middle of January 1919, when the advanced post of the central column was suddenly attacked at Lamlai, but peace was restored by the 1st March 1919. The course of the operations is more fully described in paragraph 43 below. Action has been taken against the Chiefs responsible for the rebellion, and orders have been passed for the deportation of nine Chiefs for periods ranging from a few months to ten years. In order to ensure against a recrudescence of the unrest, three military police posts have been established in the area, supported from a strong base at Maungkan on the Chindwin River, and the area is being opened up by means of the construction of mule-tracks between the posts. To secure the concentration of the Kukis and to bring them under effective administration, that portion of the Thaungdut State, lying to the north of the Nampanga stream, to which the Kukis have penetrated, is being incorporated within the Somra Tract, and no settlements of this tribe

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will be permitted within the amended borders of the State south of that river. The Mawlvailup group of Kipyin villages has been transferred from their habitations in the vicinity of the Naga country in the extreme north, to the centre of the tract. This course will have the effect of interposing a belt of uninhabited country between the Kukis and the Nagas of the unadministered territory to the north of the tract and will thereby reduce the opportunities of friction between the two races. Similar arrangements have been made for the protection of the Tongkhul Nagas in the centre of the tract. The old Chief, Shempu, father of the notorious Pachei, died during the year, and was succeeded by his son Kamjadem. Another important change in tribal administration was the migration of Vunmul, Chief of the Kipyin clan, from Manipur, in order to live among his clansmen of the Mawlvailup group in the Somra Tract.

The continuance of the operations against the Kukis in Manipur and the Somra Tract necessitated adherence to a passive policy within the Chin Hills proper, and no active measures were taken against the Lawhtu tribes, who continued to maintain a defiant attitude in the south of the administered area. A strong force, however, patrolled the south-western frontier for the whole of the open season, with the result that internal peace was preserved except in the Lawhtu area, and no raids of any kind took place either in the Chin Hills or in the plains of Burma. Measures necessary to restore tranquillity in the Lawhtu area in the coming open season are under consideration. A body of Chin friendlies, recruited from the Kamhow tribe by Lieutenant H. Rundle, did excellent work against the Kuki rebels and accounted for one Chief and forced another to surrender. As regards internal administration, the tribute due from the Falam and Tiddim Subdivisions was remitted in full in recognition of their loyalty, while action under section 121 of the Indian Penal Code has been taken against the principal Chiefs responsible for last year's disorders in the Haka Subdivision, where conditions of settled government have not as yet been fully restored. Conditions approximating to famine prevailed throughout the hills during the year and the high price of rice in the plains aggravated matters. Experiments with wheat proved a comparative failure, but another attempt will be made with fresh seed. The composition and strength of the Chin Hills military police battalion remained unchanged, but extra men from other battalions were retained as a precautionary measure. Owing to the unsettled state of the country, no progress could be made with road extensions, but sundry additions and improvements were made to Government buildings and an inspection bungalow, burnt by the rebels in the previous year, was rebuilt. The influenza epidemic was particularly virulent, every single man in the Military Police Battalion suffered and the general administration was entirely disorganised for about a month. It is estimated that the number of deaths from this cause exceeds 5,000. Dysentery and small-pox also made their appearance and a very malignant form of malaria is apparently increasing. The only hospitals are in the military police lines, but proposals for the construction of two civil hospitals at Haka and Tiddim are under consideration. Attendance and passes at the schools at Falam and Tiddim both declined and for this the influenza epidemic is mainly responsible. The establishment of a school for Chiefs at Haka is being considered.

Within the Pakôkku Hill Tracts the year has been uneventful, except for the surrenders of Buhrum and Aung Tin, who were largely responsible for the last year's disturbances. The Company of Chins recruited from this area distinguished themselves by their good work in the Kuki operations. With the restoration of order, progress has been made with inter-village communications, a new school for boys was opened at Kanpetlet and a commencement made with the growing of mulberries for sericulture. Crime was very light. Though the rainfall was much below the average and the crops were indifferent, the revenue was easily collected.

The Hill District of Arakan was disturbed by three raids by transfrontier Chins on administered villages. The most serious was an attack by Twiship villagers on Laungtan village, resulting in the death of one girl and the capture of two children. Measures to guard against a recurrence of such raids are under consideration. The introduction of the new revenue system, which involves also

an increase of taxation, was again postponed, owing to the unsettled conditions produced by the war. Agriculturally the year was unsatisfactory. Influenza in October and November interfered with tobacco cultivation, which was further damaged by hailstorms, and prices for agricultural produce generally also ruled low. The result was a considerable scarcity of food grain, which was met by an increased allotment of agricultural advances. A grant of Rs. 15,000 spread over five years was made from Provincial funds for the improvement and maintenance of existing roads, and work has been started.

(iii) The Kachin Hills.

[*The Putao District and tracts in the Myitkyina, Bhamo and Katha Districts.*]

9. During the year of report the internal peace of the Kachin Hills has been preserved and the frontier has again been undisturbed. Intercourse with China and the transfrontier tribes continued to be satisfactory and feeling in favour of the extension of the British administration appears to be gaining ground among the transborder Chiefs. The usual frontier meetings were held at Sima and Naungma and a considerable number of pending cases was settled.

Violent crimes increased from 8 to 16, but, considering the custom of blood feuds and the instincts and habits of the tribes, the volume of crime is surprisingly small. In Putao and Katha the number of criminal cases declined from 71 to 54 and from 13 to 10, respectively, while in Myitkyina and Bhamo they increased from 114 to 126 and from 38 to 65, respectively. The increase in Bhamo is due to an increased number of prosecutions under the Forest and Opium Acts. Vigorous action continued to be taken to enforce the collective responsibility of villagers and the fulfilment of duties by headmen, and some undesirable characters were deported, but there was considerably less ground for such action this year than in 1917-18. The number of civil cases instituted was much the same as in the previous year and they call for no remark.

Tribute was levied at the same rates as last year and was collected without difficulty. The total amount paid, including *thathameda* in the Pamkham and Lweje Shan Tracts in the Bhamo District, was Rs. 60,153, or a small decrease of Rs. 495, for which the ravages of influenza were entirely responsible.

No opium or liquor shops were licensed in the Kachin Hills. There was, however, a considerable extension of poppy cultivation in the Bhamo District, owing to high prices and keen Chinese demand. The crop was a poor one and an abrupt fall in price led to heavy losses. Action was taken, where possible, to destroy the plantations of Chinese immigrants. Several interesting agricultural experiments were made and potatoes proved very successful, no less than 39,000 pounds being distributed among 26 villages.

The output of jade and amber fell considerably and only 51,068 viss of jade valued at Rs. 2·68 lakhs were exported as compared with 100,258 viss valued at Rs. 4·04 lakhs last year. The figures for amber are 310 viss valued at Rs. 7,060 as compared with 1,785 viss valued at Rs. 7,960. The jade mines in the Katha District were not worked during the year.

Progress was made with the appointment of headmen, the settlement of boundaries and the registration of arms.

Condition of the People.

10. The agricultural season compared unfavourably with that of the previous year, the rainfall was erratic and ill distributed, heavy downpours alternated with long breaks, and the area over which crops failed to mature was larger by nearly half a million acres than the corresponding area in the year 1917-18. The year was also an exceptionally unhealthy one, owing to the prevalence of influenza, which spread all over the Province, and was responsible for the very high death rate of 39·59 per 1,000 of the estimated population as compared with 25·28, the mean of the previous five years. In addition, cultivators suffered severely from a serious recrudescence of rinderpest, which was particularly virulent in

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Lower Burma, and the deaths amongst the live-stock of the Province from this cause are estimated to have amounted to close on 26,000, which is the heaviest mortality experienced since the year 1905-06. The price of imported articles continued to advance, and imported cotton piece-goods, which may almost be said to be necessaries, have quadrupled in price since the beginning of the present century. On the other hand, although the cultivator has to pay more for his clothes and has had to forego luxuries, he received much higher prices for his produce. In Lower Burma, the cultivator received probably not less than an average of Rs. 115 per 100 baskets for his paddy as against Rs. 85 in the previous year, while in Upper Burma, with its greater variety of crops, the rise has been even greater proportionately, and in the case of maize, gram and sessamum, the increase in price amounted to between 50 and nearly 100 per cent. An appreciable decrease in crime also points to absence of any really serious distress, while a fall in civil litigation seems to indicate that there has been a contraction of credit. On the whole, therefore, it may be said that, while there has been some decline in the standard of living as compared with the years before the war, it does not appear probable that the economic position of the great mass of the people has been seriously affected, and their general condition may be described as not unsatisfactory, in spite of the heavy influenza death-roll and the serious losses caused by cattle disease.

CHAPTER II.

ADMINISTRATION OF THE LAND.

REFERENCES—

Report on the Land Revenue Administration of Burma during the year ended the 30th June 1919.
Land Records Administration Report of Burma for the year ended the 30th June 1919.
Agricultural Statistics of India, Volume I.

Realization of the Revenue.

Changes in Law, Rules and Directions.

11. Detailed instructions were issued for the survey of grants of land for rubber cultivation and for the levy of a scale of fees for such survey. The extraction of stone or schist required for the construction of private roads was exempted from payment of royalty. Persons who had paid income-tax for the financial year were exempted from payment of capitation-tax for that year or from land tax in lieu of capitation-tax in respect of land occupied by them. The procedure to be followed in applying for certificates of approval to prospect for minerals was revised. The Local Government delegated certain of its powers in respect of the grant of certificates of approval to the Financial Commissioner, including the power to sanction the assignment or transfer of such licenses in cases in which they were issued with his sanction.. The Burma Oil-fields Act came into force from the 1st January 1919 and the areas constituting the Minbu, Singu, Minhla and Yenangyaung Oil-fields were defined.

Demand, collections, remissions and outstandings.

12. The total current demand from all heads of land revenue rose from Rs. 4,89·20 lakhs to Rs. 4,91·37 lakhs. Ordinary land revenue rose by Rs. 1·54 lakhs, fishery revenue by Rs. 2·26 lakhs and royalties on minerals, other than petroleum, jade and amber, by Rs. ·74 lakh, while royalties on petroleum, jade and amber declined by Rs. 2·13 lakhs. Variations under other heads were unimportant. Owing, however, to much larger remissions of land revenue on account of the unfavourable agricultural season, the total collections fell from Rs. 4,74 lakhs to Rs. 4,71 lakhs.

Exclusive of the amounts to be credited to cess and irrigation, the demand of land revenue proper for the year rose from Rs. 3,12·78 lakhs to Rs. 3,14·32 lakhs. This increase was somewhat below the normal, but variations in particular districts call for no comment.

In the Arakan Division the season was not unfavourable and in the Akyab District there was an extension of 2,282 acres in the area under miscellaneous crops, though the revenue demand in the same district decreased by Rs. 21,118, owing to increased fallow assessment. Remissions on account of floods in the Myebôn Township of the Kyaukpyu District were responsible for a slight decrease in the revenue demand.

In the Insein and Pegu Districts of the Pegu Division there were increases of Rs. 75,000 and Rs. 72,000, respectively, in the revenue demand, owing to the substitution of full for intermediate rates of assessment. There were small increases also in the Tharrawaddy and Prome Districts, owing to extension of cultivation, but generally speaking the area assessed in this division showed little change from that of the previous year.

In the Irrawaddy Division, on the other hand, the season was distinctly less favourable, and in four of the five districts in this division there was a decrease in the revenue demand, owing to increased fallowing. In the Bassein District resurvey of certain areas and extension of cultivation resulted in an increase of 8,374 acres in the area assessed, but the revenue demand nevertheless decreased by Rs. 14,127, on account of more extended fallowing. For the same reason the demand in the Pyapôn District fell by Rs. 23,858, in spite of an increase of

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2,218 acres in the area assessed. In the Ma-ubin District the unfavourable agricultural conditions were aggravated by wide breaches in the Yandoon Island embankment and in private bunds in the Pantanaw and Danubyu Townships, and the revenue demand fell by Rs. 24,647. In the Myaungmya District also the demand fell by Rs. 23,980 on account of increased fallowing, though the area assessed rose by 8,552 acres. In the Henzada District there was, however, a substantial increase of Rs. 31,924 in the revenue demand, consequent on an increase of 21,923 acres in the area assessed, the latter increase being chiefly due to resurvey.

Except in the Amherst District, conditions in the Tenasserim Division were, on the whole, normal. Owing to extension of cultivation and to reduction of the area destroyed by floods, the revenue demand in the Toungoo District increased by Rs. 40,969 and the assessed area by 4,694 acres. In the Amherst District, however, no less than 9,832 acres were relinquished and 3,396 acres were resumed in default of payment of revenue, but the revenue demand nevertheless increased by Rs. 23,000, owing to the imposition of full assessment rates in certain portions of the district. Changes in the other districts of this division were unimportant.

In the Magwe Division conditions varied. In the Thayetmyo District the season was distinctly favourable and the area assessed rose by 20,900 acres with a corresponding increase of Rs. 27,953 in the revenue demand. Good rains in the Minbu District also led to an expansion of paddy and sessamun cultivation, and the assessed area increased by 31,018 acres and the revenue demand by Rs. 28,201. Deficient rainfall in the Pakôkku and Magwe Districts resulted, however, in decreases of Rs. 10,312 and Rs. 6,691, respectively, in the revenue demand in these two districts.

In the Mandalay Division the season was an indifferent one. Extensive floods destroyed a considerable proportion of the paddy in the Mandalay District, but this land was subsequently replanted with miscellaneous crops and the revenue demand fell by only Rs. 12,812. Influenza, floods and cattle disease caused slight decreases in the area assessed in the Bhamo and Katha Districts, while wild elephants did damage to all crops in the Ruby Mines District.

In the Shwebo District of the Sagaing Division there was a large decrease of 48,243 acres in the area assessed and a corresponding decrease of Rs. 28,751 in the revenue demand. Deficient and untimely rainfall, bad paddy prices in the previous year, and the failure of cultivators to repair their water-courses were the chief reasons for these decreases. In the Sagaing District, on the other hand, plentiful early rainfall and stricter assessment by surveyors resulted in an increase of 46,714 acres in the area assessed and of Rs. 48,041 in the revenue demand. Failure of the late rains caused a decrease of 28,494 acres in the area assessed in the Lower Chindwin District with a corresponding drop of Rs. 22,264 in the revenue demand, but a more favourable season in the Upper Chindwin District resulted in a slight increase in the settled area of that district.

In the Meiktila Division the season was a bad one, except in the irrigated portions of the Kyauksè District, but even in this district the demand fell by Rs. 24,075, owing to deficient rainfall in the unirrigated part of the district. In the Meiktila District the area assessed remained stationary, but the demand fell by Rs. 11,713. In the Yamèthin District an enhancement of rates in the Pyinmana Subdivision of the district was entirely responsible for an increase of Rs. 13,041 in the total demand for the district and in the less favourably situated Yamèthin Subdivision demand and area decreased by Rs. 54,935 and 32,428 acres, respectively. Nearly half of the Myingyan District was fallowed and 20 per cent. of the cultivated area failed to mature, but, owing to extensions of highly assessed tobacco cultivation, the demand decreased by only Rs. 5,600.

The unfavourable character of the season is reflected in the very large increase in remissions of land revenue. These rose from Rs. 3·05 lakhs to Rs. 13·15 lakhs, and in addition a sum of Rs. ·85 lakh, due on account of the previous year's revenue, was remitted in the year of report. Floods accounted for Rs. 11·05 lakhs of the remissions of the current year, the districts showing the largest amounts being Ma-ubin with Rs. 4·22 lakhs and Insein with Rs 4·16 lakhs. In no other district did the remissions exceed Rs. 1 lakh, but in each of the five

Districts of Thatôn, Hanthawaddy, Tharrawaddy, Bassein and Amherst the amount remitted exceeded Rs. 20,000 and was considerably above the average.

The amount remitted as irrecoverable was Rs. 73,822 and a sum of Rs. 24,393 was struck off on account of erroneous assessment. A large part of the amount irrecoverable was due to an error in procedure in the Pegu District, an error since put right. The only two districts showing any substantial amount of erroneous assessment were Amherst and Mergui, where two rubber estates, which had been relinquished, were wrongly assessed.

The total demand, including arrears of the previous year, amounted to Rs. 3,23·82 lakhs, of which only Rs. 1·64 lakhs remained outstanding at the end of the year of report. Of the previous year's outstanding of Rs. 9·50 lakhs, Rs. 8·57 lakhs was collected, and of the current net demand of Rs. 3,01·16 lakhs (that is to say gross demand Rs. 3,14·31 lakhs less remissions Rs. 13·15 lakhs), Rs. 2,99·60 lakhs was collected. Collection was easy, except in the Akyab, Kyaukpyu and Toungoo Districts, and on the 30th June 1919 no less than 22 districts had practically no outstandings other than supplementary assessments made shortly before the close of the year. In the Akyab and Kyaukpyu Districts paddy prices ruled low, and the expectation of a general remission, similar to that granted in those districts in the previous year, retarded collections. In the Toungoo District difficulty was experienced owing to tightness of money and also owing to shortage of railway rolling-stock for the purpose of moving the crop. The Mandalay District had the largest outstanding of any district in the Province, namely Rs. 49,859, but this is explained by there having been four changes of Deputy Commissioner in ten weeks.

The total area returned as fallow in Lower Burma, was 792,794 acres, or 103,906 acres in excess of that of the previous year. Of this total, 327,776 acres were assessed at the full rate, 453,602 acres at the two-anna rate and 11,416 acres at intermediate rates. The unfavourable character of the season and floods account for the increase in fallowing, which was shared by all districts in Lower Burma, except Hanthawaddy, Prome and Tavoy.

Revenue proceedings and coercive processes.

13. The amount of revenue, for the realization of which application was made, was Rs. 12·97 lakhs and the amount realized was Rs. 10·56 lakhs, or 81 per cent. The amount for which application was made was less than last year by Rs. 50,510 and the amount recovered was less by only Rs. 2,387. The number of notices issued increased from 49,884 to 56,412, but the number of warrants of arrest declined from 7,361 to 7,209 and the number of persons committed to jail from 22 to 3. Warrants of attachment and sales of immoveable property increased considerably from 12,491 to 22,367, and from 1,351 to 5,651, respectively. Warrants of attachment and sales of moveable property, on the other hand, fell slightly from 3,269 to 2,948, and from 292 to 161, respectively.

Except in the Akyab and Kyaukpyu Districts, where conditions were altogether abnormal, the revenue of the year of report was collected easily and without undue resort to coercive processes, though fishery revenue and *thathameda* and capitation-tax gave, as usual, more trouble than land revenue proper. In the Arakan Division, however, there was considerable difficulty in collecting the revenue, owing to the fall in the price of paddy and scarcity of shipping, and it was eventually found necessary to remit the capitation for the year in the Akyab District. Some indication of the difficulty of collection in this Division is afforded by the fact that the Akyab District was responsible for more than four-fifths of the total number of sales of immoveable property in the Province, while the Kyaukpyu District contributed more than one-fifth of the total number of warrants of arrests issued. Elsewhere, there were a few instances of the issue of large numbers of processes, owing to the misplaced zeal of certain Township Officers, but generally speaking, in the rest of the Province, there was a substantial decline in the number of coercive processes. There were marked decreases in the Tharrawaddy and Bassein Districts, where headmen worked well; while there was an increase in the Amherst District, where capitation-tax caused difficulty. In the Ma-ubin District, which showed the largest amount of arrears for recovery, most of the processes were issued on account of fishery revenue, which

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was, however, recovered in full. In Upper Burma there was, as usual, little need for coercive measures. The Mandalay and Meiktila Districts showed the largest numbers of processes issued, but in both cases the figures were smaller than those of the preceding year.

Surveys.

Surveys by Imperial Agency.

14 Topographical survey operations were continued during the year of report by Nos. 10, 11 and Special Burma Forest Survey Parties of the Survey of India in the Myitkyina and Putao Districts of Upper Burma and in the Tavoy and Mergui Districts of Lower Burma. The Special Burma Forest Survey Party was formed and started forest surveys in the Meiktila District of Upper Burma. An area of 4,166 square miles, including 74 square miles of reserved forest, was surveyed on the half-inch, one-inch and two-inch scales. Triangulation and traversing were also carried out in the Katha and Meiktila Districts of Upper Burma and in the Mergui District of Lower Burma with a view to detailed survey being extended to those districts next season.

In addition to the above the survey of an area of 896 square miles was revised on the quarter-inch scale in the Upper Chindwin District and the unadministered area adjoining it and in the Chin Hills of Upper Burma.

During the year of report tidal operations were continued by No. 16 (Survey) Party at Rangoon and Moulmein, where the tidal observatories were inspected and the tide-gauges were cleaned, adjusted and left in good working order.

The Magnetic Observatory at Toungoo was visited and magnetic observations for the comparison of instruments were taken.

Surveys by Provincial agency-extension and revision surveys.

15. The Special Survey Party completed the recess work of the areas surveyed in the previous year, and during the field season carried out revision surveys of tracts in the Bassein, Henzada and Amherst Districts, with an occupied area aggregating 160,934 acres. The cost of these revision surveys worked out to Rs. 151-2-0 per square mile and Re. 0-4-11 per acre occupied. The same party also undertook extension surveys, following new traverses in the Myaungmya and Pyapôn Districts comprising 48,671 acres of occupied area. The cost per square mile was Rs. 250-12-0 in Myaungmya and Rs. 176-8-0 in Pyapôn, and Re. 0-14-3 and Re. 0-5-2, respectively, per occupied acre. A portion of the staff was also engaged in a topographical four-inch survey of Pyindaye and Kakayan forest areas in the Pyapôn and Myaungmya Districts, where some 88·80 square miles were traversed at a cost of Rs. 225-3-0 per square mile. This work was conducted under great difficulties, owing to the prevalence of cholera, scarcity of good water and desertion of the Arakanese jungle-clearers. Casualties were heavy, one Assistant Superintendent, 6 Amins and 25 Chainman died of cholera in the field, and 75 per cent. of the staff are still suffering from the effects of their trying experience. The local staff in the various districts revised the survey of 477,558 acres of occupied area, as compared with 465,024 acres in 1917-18. Excellent work was done and a high standard of accuracy was exacted. In the Insein, Thatôn and Mergui Districts 92 rubber estates with an aggregate area of 4,029 acres were surveyed by the local staff, and holding surveys of impermanent island cultivation and of previously unsurveyed tracts made satisfactory progress.

Town and fishery surveys and surveys of leased areas.

16. No new town survey was undertaken during the year, but the recess work in connection with last year's survey of the civil station at Tavoy was completed. The survey of leased and granted areas by special establishments working on the piece-work system was continued in five districts. In Kyaukpyu 72 applications for an area of 337 acres were dealt with by a staff of five surveyors. In Thatôn eight applications for the cultivation of rubber aggregating 1,800 acres, two applications for mining leases aggregating 1,174 acres and 70 applications for paddy cultivation aggregating 1,410 acres were dealt with by three surveyors aided by the local staff. The areas for rubber were traversed by the theodolite where they exceeded 100 acres and by plane-table where they did not, and in all cases connection with permanent survey marks was made. In

Amherst 164 applications for 8,242 acres were made, the majority of which lay in areas of the Chaungzon township hitherto reserved against unauthorised squatting and land speculation. Applications for 2,050 acres were either rejected or withdrawn, leaving an area of 6,192 acres to be dealt with, including 2,000 acres applied for by the Hon'ble Mr. Lim Chin Tsong for the cultivation of cocoanuts on Kalagauk Island. Twenty-four applications covering 1,572 acres were dealt with. In Tavoy 38 applications comprising 2,962 acres were received during the year, of which 36 applications covering 1,557 acres were disposed of. The traverse of 1,400 acres for the Tavoy Rubber Company was in progress at the end of the year. In Mergui, out of 142 cases for survey pending at the commencement of the year, 139 were disposed of. The total number of cases to be dealt with was 185 covering 8,641 acres, of which the Inspector checked 180 cases. The special temporary staff of one Inspector and six surveyors was disbanded on completion of the work. The cost of these surveys of leased areas was in all cases met from fees deposited by the applicants.

Settlements.

17. During the year ending the 30th June 1919 Settlement Parties were at work in the six districts of Sagaing, Magwe, Myaungmya, Shwebo, Minbu and Kyaukse, in which their operations covered a gross area of 11,992 square miles and an occupied area of 3,866,000 acres. **Progress of Settlements.**

The second settlement of the Sagaing District was started in November 1915 and was completed in December 1918, when the party moved on to the Shwebo District. All the field work in the district having been completed in the previous year, the work of the party in the year of report was confined to the compilation of statistics, the drafting of the report and the soil classification of some 6,000 acres of occupied area included within the limits of Sagaing Town. The Settlement Officer's report was submitted and is at present under the consideration of the various reviewing authorities. The total area dealt with in this district comprised a gross area of 1,817 square miles with an occupied area of 772,000 acres.

The second settlement of the Magwe District was commenced in November 1915 and the period originally allotted for the completion of the work was three years, but, owing to the extent of the area to be dealt with and the complexity of the work, it was found necessary to extend the period by seven and a half months. The field work covering an area of 2,710 square miles and an occupied area of 967,000 acres had practically been completed before the beginning of the year of report, and the party was chiefly occupied with the compilation of statistics and the drafting of the report. Operations were finally concluded in June 1919, when the party moved on to the Kyaukse District. The Conference to consider the Settlement Officer's report will shortly be held and the new rates will probably come into force on the 1st July 1920.

The revision settlement of a portion of the Myaungmya District, comprising a gross area of 1,742 square miles with an occupied area of 653,000 acres, was begun in November 1916. A period of two years was originally sanctioned for the completion of the operations, but, owing to the difficult nature of the country, it was found necessary to extend this period by one year. All field work was completed and the compilation of statistics and the drafting of the report are in hand.

The reclassification of the area irrigated by the Mon Canals in the Minbu District was commenced in November 1918 by a small temporary party working under the Deputy Commissioner of the district. A period of eighteen months was originally sanctioned for the completion of operations on the assumption that a whole-time Settlement Officer would be available. As no such officer was available and as the Deputy Commissioner, under whom the operations started, has proceeded on leave and has been succeeded by an officer with no settlement experience, a short extension will probably be necessary. The area to be dealt with covers a gross area of 213 square miles and an occupied area of 112,000 acres. The area dealt with during the year was 108 square miles with an occupied area of 59,000 acres.

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The re-settlement of the Shwebo District with a gross area of 4,943 square miles and an occupied area of 1,100,000 acres was begun in November 1918. During the year soil classification and connected operations were carried on over a gross area of 1,607 square miles with an occupied area of 266,000 acres. Owing to illness and shortage of officers and other causes, the first year's programme of work could not be completed, and it is probable that an extension of one year to the originally sanctioned period of four years will be found necessary for the satisfactory completion of operations in this district.

The resettlement of the Kyauksè District was started in the middle of June 1919 and no field work of any importance was undertaken during the year of report. The area for settlement in this district consists of a gross area of 567 square miles with an occupied area of 262,000 acres.

Financial results and expenditure.

18. New settlement rates in the Akyab District were sanctioned during the year of report. The third settlement of this district covering a gross area of 1,950 square miles and an occupied area of 736,000 acres was completed in 1916, but, owing to the specially unfavourable conditions prevailing in this particular district, as the result of the war, it was decided not to introduce the new settlement, although the old settlement expired over half the district in June 1918. As conditions rapidly improved after the conclusion of the war, the new rates were introduced for a term of twenty years with effect from the 1st July 1919. At the rates proposed by the Settlement Officer the new demand was calculated to yield an increase of Rs. 5·05 lakhs, or 27·65 per cent. more than the old demand of Rs. 18·26 lakhs. The Local Government accepted the Settlement Officer's proposals with slight modifications and at the sanctioned rates the Land Revenue demand will be Rs. 23·04 lakhs, or an increase of 26·17 per cent. Owing, however, to the introduction of intermediate rates in cases in which the new demand exceeds the old one by more than 50 per cent., the demand for the first five years will be appreciably less than the demand calculated at the full sanctioned rates.

The expenditure during the year of report of all the Settlement Parties which were at work was Rs. 2·16 lakhs. For the area in which field work was completed, settlement operations cost Rs. 91 per square mile, or approximately four annas per occupied acre.

Land Records.

Area under Supplementary Survey.

19. The rural area under supplementary survey was 50,342 square miles as against 50,314 square miles at the close of 1917-18. An increase of 6 square miles took place in the Bassein District, owing to the inclusion of the newly surveyed Lahagyi Tract, and of 5 square miles in the Myaungmya District, while there were nominal increases of 51 and 3 square miles in the Katha and Thayetmyo Districts, respectively, owing to the correction of previous errors. The occupied area was 17,512,332 acres, the cropped area 13,600,810 acres and the revenue demand Rs. 3,49,66,759. As compared with 1917-18, the occupied area increased by 93,120 acres, chiefly in Lower Burma, but unsatisfactory rainfall resulted in decreases of 154,429 acres in the cropped area and Rs. 16,440 in the revenue demand. In the Tharrawaddy and Insein Districts there was a considerable enhancement of demand, due to the introduction of full instead of intermediate rates of assessment.

The area under supplementary survey in towns increased by 4 square miles to 257 square miles, due to the addition of one square mile to the area of Tavoy town and to towns in the Kyauksè District coming under supplementary survey for the first time. The total land revenue and rent and land rate increased from Rs. 13,56,159 to Rs. 13,81,202, a difference of Rs. 25,043. Rangoon Town is mainly responsible for the increase, as the assessment of 218 encroachments and the issue of 540 new leases in that town resulted in an increased revenue of Rs. 20,865. There were also minor increases in Kyauksè, Insein, Tharrawaddy, Prome and Thayetmyo, while in Meiktila the adjustment of rates erroneously assessed on agricultural land in 1917-18 accounted for a decrease of Rs. 9,398. Municipal taxes assessed by the Land Records Department declined

by Rs. 22,480 from Rs. 6,96,892 to Rs. 6,74,412. This decrease is accounted for by Ma-ubin and Mergui Municipal assessments no longer being carried out by the staff of the Land Records Department. There was an increased demand in the Tharrawaddy District, owing to assessments being made for the first time in the notified areas of Minhla, Zigôn and Nattalin.

Cost of Supplementary Survey.

20. The total cost of supplementary survey was Rs. 15,85,390, an increase of Rs. 7,141 on last year's figures. An increase of Rs. 8,960 under the head of superintendence is the result of grade promotion and the appointment of Assistants to eight districts, and of Rs. 4,779 in the cost of the subordinate field staff is due mainly to an increase of seven surveyors on the Akyab District staff. On the other hand, the completion of the resurvey of Rangoon and Meiktila towns is responsible for a saving of Rs. 6,958, there being no charges for masonry pillars for the protection of town survey marks during the year. The incidence of cost stands at 4·28 per cent. of the revenue assessed, an increase of ·02 per cent. on 1917-18, but a decrease of ·03 per cent. on 1916-17.

Training of Officers.

21. Two Assistant Superintendents of Land Records passed their final examinations during the year and seven others are in various stages of training. The number of survey schools was 18, the same figure as last year, but the number of pupils declined from 232 to 217, eight schools showing a decrease and seven an increase in attendance. All the 140 available scholarships were allotted to the value of Rs. 15,381. The total expenditure was Rs. 39,379 against an income of Rs. 2,484. The net cost of educating each pupil was therefore Rs. 170 as compared with Rs. 161 last year, the increase being due to the payment of travelling and subsistence allowances to candidates attending the annual final examination. The results of this examination, for which pupils of Government Survey Schools and private candidates specially recommended by Deputy Commissioners are eligible, were less favourable than in 1917-18. The percentages of passes in the three subjects of Arithmetic, Revenue Law and Surveying obtained by pupils of Government Survey Schools were 72, 92, and 60, respectively, while in the case of private students the percentages were only 51, 76 and 29. Except in the case of the last mentioned figure, which is exceptionally low, the percentage results are, however, either equal to, or above the average for the past five years.

Certain minor alterations and improvements in the system of training in survey schools have recently been sanctioned, but this subject will be reconsidered in connection with the Land Records system of the Province as a whole. This system will shortly be examined with the object of ascertaining whether some modifications in the direction of increased simplicity are not desirable, and matters such as the introduction of a system of permanent holding numbers and of fixed assessment, and better co-ordination of the Land Records with the Settlement Department will be considered.

At the commencement of the year the number of apprentices under training was 283, but before its close this number, owing to resignations and removals, was reduced to 256, or 11 less than last year. The training was well carried out and 88 per cent. of the number examined were awarded final proficiency certificates. The number of certificate holders, who were appointed permanently during the year was 94, while the services of 202 were utilised in leave vacancies. During the year 17 vacancies in the ranks of Inspectors were filled, and training camps prior to taking the field were held in all but four districts.

Transfers of Land.

22. The area over which agricultural statistics were collected during the year rose from 17,419,000 acres to 17,501,000 acres. The area sold during the year increased from 439,611 acres to 480,074, and the area mortgaged from 421,452 acres to 449,253. Though both figures show an increase on the previous year, they are still less than in any year since the war began, except last year. The total area under mortgage has, however, more than doubled since 1913-14, and stands now at 2,819,900 acres. The area redeemed during the year was 244,672 acres and shows little change from the previous year.

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The area transferred by sale was 2·7 per cent. of the whole area covered by the statistics, or 0·2 per cent. more than in 1917-18. The area mortgaged without possession during the year was 2·5 per cent. of the whole, or 0·1 per cent. more than in the previous year; while the area redeemed remained stationary at 1·4 per cent. of the whole. The total area held under non-usufructuary mortgage at the end of the year rose from 14·4 per cent. to 16·1 per cent. of the whole.

In Lower Burma the areas sold and mortgaged formed, respectively, 4·5 and 4·6 per cent. of the area occupied, while in Upper Burma the corresponding figures were only 0·6 and 0·1 per cent., respectively.

The total value of the land sold during the year rose from Rs. 2,75·30 lakhs to Rs. 2,87·02 lakhs, and that for which the land was mortgaged from Rs. 1,73·63 lakhs to Rs. 1,89·23 lakhs. The average value of the land sold fell from Rs. 63 per acre to Rs. 60, while the average value for which land was mortgaged rose by Re. 1 to Rs. 42 per acre.

Ninety-two per cent. of the area sold and 97 per cent. of the area mortgaged was in Lower Burma. Henzada, Pyapôn and Thatôn, and also Tharrawaddy as regards sales, but not as regards mortgages, are the only exceptions to the rule that during the year both sales and mortgages increased in all the important paddy-producing districts. The largest increases are shown in the Bassein, Pegu and Myaungmya Districts. Of the eight districts in which sales of over 25,000 acres took place the Akyab and Hanthawaddy Districts both show decreases of Rs. 7 in the average value per acre, while the other districts all show increases ranging from Re. 1 per acre in Myaungmya to Rs. 7 in Pyapôn. The area mortgaged also exceeded 25,000 acres in eight districts, but there was little variation in the average value per acre, except in the Pyapôn District, where it increased by Rs. 4 per acre. In Upper Burma sales exceeding 5,000 acres in area were reported only from the three districts of Mandalay, Kyauksè and Yamèthin. All Upper Burma districts, except Pakôkku, showed an increase in the area under mortgage, but only in the five districts of Kyauksè, Yamèthin, Minbu, Mandalay and Shwebo did the area mortgaged without possession exceed 5,000 acres at the end of the year. Land is more valuable in these five districts than elsewhere in Upper Burma; four of them are irrigated, whilst the paddy producing portion of the Yamèthin District belongs geographically, if not politically, to Lower Burma, and enjoys a fairly constant rainfall. In the Minbu District the average sale value increased by Rs. 29 per acre, owing to the sale of land of better quality in the irrigated portions of the district. In the districts of Pakôkku, Myingyan, Magwe and Yamèthin, however, the average sale value declined by amounts ranging from Rs. 10 to Rs. 22 per acre.

Scarcity of capital and the consequent contraction of the credit of cultivators continued to influence transactions in land, though to a less extent than in the previous year. Sales between agriculturists were not numerous, the calling-in of outstanding loans continued and the usual expedient of redeeming lands lightly encumbered and re-mortgaging at higher figures or selling out-right was resorted to. The percentage of cases in which the original owner resumed possession was very small. As in the previous year a considerable number of so-called sales were really foreclosures of previously existing mortgages, which with capital and accumulated interest worked out to a higher value than the average selling price per acre. In many cases also, transactions reported as sales are really mortgages. Near Rangoon and in Insein the price of land was inflated by the sale of gardens and *quasi*-urban lands for conversion to residential purposes. On the other hand, the better market for the paddy crop of the year undoubtedly induced the money-lending classes to advance larger sums on the security of agricultural land. In Upper Burma the higher price obtained for cotton, sessamum, peas and other crops tended to raise the selling price of land used for upland cultivation and to enhance its value as a security for loans. On the whole, in both Upper and Lower Burma the cultivators appear to have weathered the stress of the past five years more successfully than might have been expected, and, had the monsoon of 1918 been more favourable, the general condition of cultivators might even have been described as one of distinct prosperity.

Waste Lands.

Grants and leases for cultivation.

23. The area granted or leased for cultivation rose considerably from 6,260 acres to 16,403 acres, mainly owing to larger areas being taken up for rubber cultivation in the Tenasserim Division and in the Hanthawaddy and Insein Districts of the Pegu Division. In the Thatôn District a considerable area was applied for with the object of planting cocoanut palms, and in the same district 172 acres were also granted for the cultivation of citronella. Two applications were received for the cultivation of Kapok (*Eriodendron Infructuosum*) in the Tavoy District. Grants or leases for ordinary rice cultivation continued to be issued only in special circumstances rendering the conferment of title desirable.

Revenue-free grants of land and assignments of land revenue.

24. The area granted free of revenue for the erection of religious edifices, such as monasteries, shrines and pagodas fell from 122 to 109 acres and that granted for public purposes, such as burial grounds, increased from 22 to 24 acres—fluctuations which do not require comment. The area of land allotted as an appanage of the office of headman rose from 234 acres to 437 acres, the increase being mainly in the Bhamo District. The value of additional assignments of land revenue for the maintenance of public servants and for other purposes increased slightly from Rs. 539 to Rs. 786, and the total value of all such assignments at the end of the year was Rs. 51,549 as compared with Rs. 50,663 at the end of the previous year. There were no specially large assignments.

There was no change in the number of grants under either the rules of 1839-41 or those of 1865, but the assessment of certain of these grants was revised during the year with a slight resultant increase in revenue.

Government Estates and Wards' Estates.

25. The character of the land tenures in Burma is explained in paragraph 39 *et seq* of the ***Report on the Administration of Burma*** for the year 1911-12. Apart from Government lands of the kind therein described, there are no Government estates in the special sense of particular cultivated areas managed by Government after the fashion of a private landlord. There are no wards' estates.

Revenue and Rent-paying Classes.

Area held by agriculturists.

26. Of the total occupied area for which statistics are recorded, 14,616,259 acres were occupied by agriculturists and 2,884,193 acres by non-agriculturists. The area held by agriculturists decreased by 42,909 acres, and the area held by non-agriculturists increased by 124,151 acres as compared with the previous year. The area held by resident non-agriculturists has increased by 20,212 acres to 870,547 acres and by non-resident non-agriculturists by 103,937 acres to 2,013,646 acres. The percentage of the whole area occupied by agriculturists was 83·5 against 84·2 in 1917-18 and 84 4 in 1916-17.

In Lower Burma, including the Thayetmyo District, agriculturists occupied 7,222,458 acres, or 75·8 per cent. of the occupied area, against 77 per cent. in the previous year. Non-agriculturists occupied 2,309,508 acres, or 24·2 per cent. of the whole area, against 23 per cent. in the previous year. The decrease in the areas held by agriculturists occurred chiefly in the districts of Pyapôn (13,759 acres), Akyab (10,879 acres), Hanthawaddy (10,496 acres), Myaungmya (8,018 acres) and Insein (5,219 acres). Non-agriculturists now hold 36 per cent. of the whole occupied area in the Pyapôn District, 18 per cent. in the Akyab District, 43 per cent. in the Hanthawaddy District, 26 per cent. in the Myaungmya District and 34 per cent. in the Insein District. The percentage of the total area held by non-resident non-agriculturists was 18 per cent. and by resident non-agriculturists 6·2 per cent. The percentage held by non-resident non-agriculturists was highest in the Hanthawaddy District (36 per cent.) and exceeded 20 per cent. in the Pegu and Pyapôn Districts.

CHAP. II.—ADMINISTRATION OF THE LAND.

In Upper Burma, excluding the Thayetmyo District, agriculturists occupied 7,393,801 acres, or 92·8 per cent., and non-agriculturists 574,685 acres, or 7·2 per cent. of the area occupied. The percentage of area held by non-agriculturists exceeded 10 per cent. in the Minbu and Lower and Upper Chindwin Districts only.

Tenancies.

27. The area let at full rents decreased slightly by 42,661 acres to 3,471,515 acres, of which 3,369,369 acres, or 97 per cent., were in Lower Burma. The largest increase of 22,723 acres was in the Henzada District, but the Hanthawaddy, Pegu, Bassein and Pyapôn Districts also show increases of over 10,000 acres. In the Bassein District the increase in the rented area is again ascribed to the fact that numbers of small holders have had to part with their lands, owing to financial stress, and similar reasons are given in the Hanthawaddy and Pyapôn Districts. The area let at full rents exceeded 50 per cent. of the occupied area in the three districts of Hanthawaddy, Pyapôn and Pegu. No instances of oppression or rack-renting by landlords were recorded; on the other hand, in the Thatôn District, landlords accepted reduced rents from tenants, whose crops had suffered from floods or other reasons. During the year of report the number of tenants who had rented the same land continuously for five years or more, increased by 980 to 30,792, or 14 per cent. of the number of tenants.

The total amount of rent paid increased by Rs. 1,49·20 lakhs to Rs. 4,93·77 lakhs, owing not only to the larger area sub-let, but to the higher prices at which rents in kind were commuted. Taking the same four districts as last year in which the rent roll was largest, the money value in Hanthawaddy rose from Rs. 54 lakhs to nearly Rs. 75 lakhs, in Pegu from Rs. 40 lakhs to nearly Rs. 70 lakhs, in Myaungmya from Rs. 37 lakhs to Rs. 59 lakhs and in Pyapôn from Rs. 35 lakhs to Rs. 50 lakhs. The rise in rents in all districts has been general, except in Insein, where the area let and the rent realized were reduced by abnormal floods. The rents in 1917-18 were very low compared with the previous year and this year's increase appears to be a reversion to more normal conditions.

CHAPTER III.

PROTECTION.

REFERENCES—

Report on the Police Administration of Burma for the year 1918.
Report on the Rangoon Town Police for the year 1918.
Resolution on the Reports on Village Administration in Burma for the year 1918.
Returns showing the measures adopted for the extermination of Wild Animals and Poisonous Snakes in Burma for the year 1918.
Reports on the Administration of Criminal Justice in Burma for the year 1918.
Report on the Prison Administration of Burma for the year 1918.
Reports on the Administration of Civil Justice in Burma for the year 1918.
Note on the Working of the Registration Department in Burma for the year 1918.
Report on the Working of the Indian Companies Act in Burma for the year 1918-19.
Report on the Working of the Rangoon Municipality for the year 1918-19.
Resolution reviewing the Reports on the Working of Municipal Committees in Burma (except Rangoon) during the year 1918-19.
Administration Report of the Public Works Department, Burma, Buildings and Roads Branch, for the year 1918-19.
Administration Report of the Commissioners for the Port of Rangoon for the year 1918-19.
Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the official year 1918-19, Part III, Shipping.
Report on the Maritime Trade and Customs Administration of Burma for the official year 1918-19.
Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volume II.
Annual Statement of Coasting Trade and Navigation of British India.
Statistical Abstract for British India, Volumes I, III and IV.
Report on Government Steamers, Vessels and Launches in Burma for the year 1918-19.

Legislative Authority.

The history and constitution of the Legislative Authority of the Province are described in paragraphs 103 to 106 inclusive of the ***Report on the Administration of Burma*** for the year 1911-12.

Course of Legislation.

Work of Legislative Council.

28. The Burma Oilfields Bill, 1918, referred to in last year's report, became law as Burma Act No. I of 1918 during the year of report; and two Bills which were introduced into the Council during the year, *viz.* the Burma General Clauses Amendment Bill, 1919, and the Burma Habitual Offenders Restriction Bill, 1919, became law as Burma Acts Nos. I and II of 1919, respectively, after the close of the year of report.

The Burma Oilfields Act (No. I of 1918) repealed and re-enacted with alterations the Upper Burma Oilfields Regulation, 1910, which applied to Upper Burma only. The new Act applies to the whole Province. By this Act, an appeal to the Commissioner is given from an order by the Warden, and the Financial Commissioner has power to revise the proceedings of the Warden and the Commissioner. Provision is also made to penalize persons, who fail to account satisfactorily for being in possession of property reasonably suspected to be stolen. In order to prevent the theft of tools and parts of machinery, power has also been obtained to make rules to regulate the removal of property from oilfields.

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The Burma General Clauses Amendment Act (No. I of 1919) amends the Burma General Clauses Act (No. I of 1898), so as to include the "Nagas," a tribe which inhabits the Somra Tract, recently included in the Chin Hills and brought under the administration of the Government of Burma, within the definition of "Chins" in clause (11) of section 2 of the Act.

The Burma Habitual Offenders Restriction Act (No. II of 1919) is a measure enacted to gain a greater hold over the habitual offender, by keeping a closer control over his movements, either by confining him to a certain village or area, or by requiring him to report himself at stated times and places, or by doing both. The control of habitual offenders in Burma was found by experience to be defective, and larger powers than those afforded by Chapter VIII of the Criminal Procedure Code were considered necessary.

Two Bills, *viz.* the Burma Towns Amendment Bill, 1919, and the Rangoon Development Trust Bill, 1919, were introduced into the Council since the close of the year of report. The object of the former Bill is to provide for the prevention and suppression of contagious diseases among cattle in towns and to take power to regulate pawnshops in towns in Burma, and the primary object of the latter Bill is to provide a special agency to secure the improvement, expansion and development of the City of Rangoon on correct and sanitary lines.

General Acts affecting Burma.

29. The undermentioned General Acts affecting Burma were passed by the Governor-General in Council during the year:—

General Acts of 1918.

XIII.—The Indian Paper Currency Act, 1918.
XIV.—The Gold Coinage Act, 1918.
XV.—The Enemy Trading Orders (Validation) Act, 1918.
XVI.—The Provisional Collection of Taxes Act, 1918.
XVII.—The Indian Non-ferrous Metal Industry Act, 1918.
XVIII.—The Indian Army (Suspension of Sentences) Amendment Act, 1918.
XIX.—The Indian Defence Force (Further Amendment) Act, 1918.
XX.—The Indian Companies (Foreign Interests) Act, 1918.
XXI.—The Indian Defence Force (Foreign Service) Act, 1918.
XXII.—The Bronze Coin (Legal Tender) Act, 1918.
XXIII.—The Cotton Cloth Act, 1918.

General Acts of 1919.

I.—The Local Authorities Pensions and Gratuities Act, 1919.
II.—The Indian Paper Currency (Amendment) Act, 1919.
III.—The Motor Spirit (Duties) Amendment Act, 1919.
IV.—The Indian Income-tax (Amendment) Act, 1919.
V.—The Termination of the Present War (Definition) Act, 1919.
VI.—The Indian Oaths (Amendment) Act, 1919.
VII.—The Indian Defence Force (Amendment) Act, 1919.
VIII.—The Negotiable Instruments (Amendment) Act, 1919.
X.—The Excess Profits Duty Act, 1919.
XI.—The Anarchical and Revolutionary Crimes Act, 1919.

The following Acts affecting Burma were passed by the Governor-General in Council since the close of the year of report.

General Acts of 1919.

XII.—The Poisons Act, 1919.
XIII.—The Sea Customs (Amendment) Act, 1919.
XIV.—The Provident Funds (Amendment) Act, 1919.
XVI.—The Indian Naturalization (Amendment) Act, 1919.
XVII.—The Land Acquisition (Amendment) Act, 1919.

XVIII.—The Repealing and Amending Act, 1919.
XIX.—The Indian Tariff (Amendment) Act, 1919.
XX.—The Indian Arms (Amendment) Act, 1919.
XXI.—The Indian Coinage (Amendment) Act, 1919.
XXII.—The Cantonments (Amendment) Act, 1919.
XXIII.—The Cinematograph (Amendment) Act, 1919.
XXIV.—The Indian Companies Restriction Repealing Act, 1919.
XXV.—The Indian Merchants Shipping Law Amendment Act, 1919.
XXVI.—The Indian Paper Currency (Further Amendment) Act, 1919.

Ordinances of the Governor-General.

The undermentioned Ordinances affecting Burma were made and promulgated by the Governor-General under section 72 of the Government of India Act, 1915.

Ordinances of 1918.

I.—The Indian Paper Currency Ordinance, 1918.
II.—The Gold Coinage Ordinance, 1918.
III.—The Indian Paper Currency (Amendment) Ordinance, 1918.

All these Acts and Ordinances came fully into force during the year, with the exception of three Acts, *viz.* the Indian Income-tax (Amendment) Act, 1919, and the Excess Profits Duty Act, 1919, both of which did not come into operation until the 1st April, *i.e.* just after the close of the year of report, and the Indian Arms (Amendment) Act, 1919, which is to come into force on the 1st January 1920. Acts Nos. XIII and XIV of 1918 are to remain in force for the duration of the war and for a period of six months thereafter; Act No. XVII of 1918 is for the duration of the war and for a period of five years thereafter; and Act No. XI of 1919 is to continue in force for three years from the date of termination of the war. Ordinances Nos. I and II of 1918 were repealed and re-enacted by Acts Nos. XIII and XIV of 1918, as were also Act No. VI of 1918 and Ordinance No. III of 1918, the provisions of which were re-enacted by Act No. II of 1919.

Regulations affecting Burma.

30. No Regulation affecting Burma was enacted during the year.

Extension of Enactments to Shan States.

31. The Indian Income-tax Act, 1918, was extended to all the Shan States. All the enactments now in force in Upper Burma, except those in force in the town of Mandalay only, were extended to the Byingyi Area in the Shan State of Loilong.

The Indian Non-ferrous Metal Industry Act, 1918, and the Indian Patents and Designs Act, 1911, and the rules under the latter Act were extended to all the Shan States since the close of the year of report.

Police.

Civil Police: strength, recruitment and cost.

32. Excluding gazetted officers, the sanctioned strength of the civil police-force was 1,432 officers and 13,748 men. The actual strength was 1,376 officers and 12,696 men, or a shortage of 76 officers and 1,052 men. The deficiency in the previous year was 74 officers and 864 men. The shortage in the number of officers was again chiefly due to only 48 Cadet Sub-Inspectors of Police having been appointed to the Provincial Police Training School against the sanctioned number of 90. The shortage in the number of men was most noticeable in the Hanthawaddy, Henzada, Pyapôn, Thatôn, Amherst, Mergui and Mandalay Districts. Recruitment for the Indian Army was the principal reason for the shortage, but in some districts the class of recruit forthcoming was not suitable. In others the pay and prospects were not sufficiently attractive as compared with the wages obtainable locally. The shortage was particularly acute in the Mergui and Mandalay Districts, and it was found necessary to increase the pay of constables in those districts to Rs. 18 and Rs. 17 per mensem, respectively.

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Owing to the absence of gazetted officers on deputation to the Army or to the Military Police, the working strength of the Imperial cadre was only 46 instead of the full complement of 90.

The revision of District Police Establishments throughout Upper Burma and in the Prome, Tharrawaddy, Salween and Tavoy Districts in Lower Burma received the sanction of Government during the year. The nett result was an increase of 73 Sub-Inspectors of Police, 513 Head Constables and a decrease of 1,190 Constables. The object aimed at was to reduce the number of the lower paid ranks and replace them by Head Constables and Sub-Inspectors of Police. Accordingly, Head Constables were allowed as Assistants to Investigating Officers and were also given other duties hitherto carried out by Constables.

The total cost of the force payable from Imperial and Provincial revenues was Rs. 64·49 lakhs as compared with Rs. 64·21 lakhs during 1917-18. The main cause for this increase of Rs. 0·28 lakh was the establishment in September 1918 of two additional temporary Ranges for the period of the war and six months afterwards in the Pegu and Irrawaddy Divisions.

The cost of police paid for from other than Imperial and Provincial revenues was Rs. 2·49 lakhs as compared with Rs. 1·85 lakhs in 1917-18. The increase was principally due to the entertainment of the Special Oil-fields force at Yenangyaung. The cost of the additional police employed under section 15, Act V of 1861, was Rs. 1·99 lakhs in comparison with Rs. 2·53 lakhs in 1917-18. The decrease is accounted for by the abolition of the punitive police-forces in the Tharrawaddy and Prome Districts during 1918.

Conduct, education and training.

33. Departmental dismissals or removals of officers and men amounted to 10 and 207, respectively, a decrease of one officer and 41 men as compared with the figures for 1917. Two officers and 276 men were punished magisterially and 212 men were dismissed as a result of conviction. The total number of officers and men, who were dismissed or removed, was 10 and 419, respectively, as compared with 15 and 492 in 1917. Other departmental punishments were awarded to 274 officers and 1,371 men, which was an increase of 71 in the number awarded to officers and a decrease of 247 in the number awarded to men. The percentage of all punishments to the actual strength of officers and men was 20 and 14, respectively, as compared with 17 and 16 per cent. in 1917.

Special promotions for good work increased to 62, as against 45 in 1917. There was a further increase in the number of other rewards by 411, the total number granted being 3,540, of which 1,914 were departmental rewards and 1,626 granted by Courts in Excise and other cases. The percentage of all rewards to the actual strength was 26.

There was one true case of extortion by the police in the Amherst District and the two Head Constables concerned were convicted and dismissed. On the other hand, true cases of violence on the part of the police fell from 10 to 3, of wrongful arrest and wrongful behaviour from 5 to 2 and of wrongful confinement from 3 to 2. Appropriate punishments were awarded in all these cases. On the whole, however, the conduct of the force was satisfactory. The King's Police Medal was awarded to two officers during the year.

There were no Assistant Superintendents or Deputy Superintendents under training in the year. Two Cadet Inspectors, 49 Sub-Inspectors and 6 Sub-Inspectors of Excise were posted to the school for training. The results of the final examination were satisfactory and 2 Inspectors and 46 Sub-Inspectors passed in all subjects. The conduct of the cadets was very good, but they suffered greatly from ill-health, one cadet dying of influenza and the daily percentage of sick being 2·30. The number of literate subordinate officers and men was 12,381, or 88 per cent. of the actual strength of 14,072, as against 87 per cent. in the previous year. The number of constables other than recruits trained during the year fell from 2,238, of whom 94 per cent. qualified, to 1,979, of whom 93 per cent. qualified; and of recruits from 2,212, of whom 1,190 passed, to 2,032, of whom 1,123 passed. The number of officers, who underwent the annual revolver course, increased from 1,161 to 1,230, and the average figure of merit also improved from 44 to 45. The number of trained constables, who fired the annual course of

musketry, rose from 9,964 to 10,019, but that of recruits fell from 1,502 to 1,427; the average figure of merit also fell from 64 to 62. Classes of instruction in First Aid to the Injured were held in all but three districts, and the number of officers and men, who gained the Badge of the St. John's Ambulance Association, further increased from 315 to 389. CHAP. III.—PROTECTION.

The Police Co-operative Credit Societies in the Pegu and Prome Districts continued to improve and a police coffee-shop opened in the Magwe District was most successful. The annual foot-ball competition, open to all district police teams, was again held in Mandalay.

34. The amount allotted in the Police Budget under the head "Petty Construction and Repairs" was Rs. 75,000 and was spent in executing repairs to existing quarters and constructing temporary cottages, to meet urgent requirements. The amount entered in the Public Works Department Budget for the construction of permanent quarters for the Civil Police was Rs. 2·50 lakhs, and quarters are now under construction in Tavoy, Akyab, Amherst, Prome, Tharrawaddy, Pegu, Mawlaik, Shwebo and Magwe. In addition to the above a sum of Rs. 1·15 lakhs was spent in the construction of permanent quarters and buildings for the force in several districts. **Buildings.**

Progress in the construction of permanent quarters is necessarily slow and in the meantime a very large sum is spent yearly on the hiring of accommodation for the men, which is both uneconomical and unsatisfactory from the point of view of discipline. The amount spent on account of house rents during 1918-19 was Rs. 69,735.

35. The total number of true cognizable cases reported was 44,519 as against 45,657 in the previous year. The substantial decrease of 1,138 cases is all the more satisfactory, as it is not, like last year, mainly confined to minor offences, and this year the more serious offences against the person and against property also show an appreciable decrease of 331 cases, the total number of true cases being 11,147. Murders fell by 20, rape by 61, grievous hurt by 40 and ordinary hurt by 135 cases, respectively. Dacoities decreased by 5, and robberies by 26, and cases of cattle theft and ordinary theft declined by 549 and 152 cases, respectively. Burglaries, however, increased by 72 cases, the total number reported being 3,593. Under minor offences, a decrease of 603 cases of public nuisance was counterbalanced by an increase of 770 offences against Special and Local Laws, owing to Excise cases now being cognizable under the new Act V of 1917. **Crime**

36. Excluding cases shown as false, mistaken or pending, the number of cases finally dealt with by the police was 38,439, or 13 more than in the previous year, but the percentage of convictions obtained improved from 65 to 66 per cent. Excluding minor offences, such as public nuisances, offences against Special and Local Laws and cases which were compounded, the number of cases dealt with fell from 26,172, of which 55 per cent. were convicted, to 24,978, of which 54 per cent. were convicted. Detection was best in the Myaungmya and Ma-ubin Districts and poor in the Meiktila and Katha Districts. Of cases sent up for trial, excluding minor offences, 84 per cent. were convicted, the same as in the previous year. **Working of the Police.**

The number of persons dealt with under all classes of offences was 53,703, of whom 50,159 were tried and 33,137 convicted,—figures which do not differ materially from those of the previous year. Excluding minor offences, such as public nuisances, and 1,252 persons, whose offences were compounded, the number of persons sent for trial numbered 30,641, of whom 58 per cent. were convicted, as compared with 32,437, of whom 59 per cent. were convicted in the previous year. The number of cases in which investigation was refused increased slightly from 1,894, out of a total of 59,699 cognizable cases reported, to 1,929 out of 59,472.

The number of cases of violent crime decreased by 47 to 1,456. In Lower Burma there was a decrease of 68 cases, but in Upper Burma there was an increase of 21 cases, for which the Meiktila and Magwe Divisions were responsible. The general decrease was shared by all forms of violent crime,

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except culpable homicide and attempted murder, which showed slight increases of 4 and 2 cases, respectively. Firearms were used in 126 cases, including 85 dacoities, as against 134 in the previous year. Nineteen of these cases took place in the Thayetmyo District and were the work of two dacoit gangs operating in that district and the neighbouring districts of Minbu and Prome. The number of true cases of violent crime dealt with by the police fell from 1,491 to 1,446; of those sent up for trial from 944 to 899; and the ratio of convictions to cases tried from 67 to 65 per cent. Though detection was less satisfactory, the proportion of property recovered was nearly double that of 1917. In cases of murder the ratio of convictions to cases dealt with fell from 31 to 28 per cent., but there was a decline of 20 in the number of cases. The great delay which occurs before these cases reach the Sessions Court is said to be one of the chief reasons for the low percentage of conviction. The same reason is assigned for the equally low percentage of conviction in dacoity cases, only 55 out of 188 cases dealt with, or 29 per cent., having ended in conviction. This form of crime showed a substantial decrease in the Pegu Division, mainly owing to the breaking-up of the Chaungzauk gang, 12 members of which were convicted under section 400 of the Indian Penal Code, and in the Irrawaddy Division, owing to the salutary effect of the deportation of a notorious leader and his chief assistants, who formerly operated in the Bassein and Henzada Districts. Unfortunately, this decrease in Lower Burma was counterbalanced by a large increase in Upper Burma and the net result was that dacoities in the Province as a whole only decreased by five to 189. In three out of the four districts of the Magwe Division dacoities increased from 20 to 41 and in the Meiktila Division from 16 to 26, but the most dangerous gangs have since been suppressed. Robberies also declined in number by 26 to 508 and in percentage of convictions from 45 to 44. The more serious forms of house-breaking, namely those punishable under sections 458 to 460 of the Indian Penal Code, decreased from 101 to 99, but there was a large increase of 72 cases of ordinary burglary, the total number reported being 3,593. Only 34 per cent. of the cases dealt with were convicted as against 37 per cent. in 1917. The number of cases of cattle theft dealt with further declined by 549 to 2,403, and during the past two years there has been a reduction of no less than 945 cases. In all, 3,973 head of cattle valued at Rs. 2·51 lakhs were stolen, of which 2,421 head valued at Rs. 1·58 lakhs were recovered. Decreases exceeding 100 cases were reported from each of the three districts of Insein, Bassein and Tharrawaddy, but the reduction was fairly general and only three districts showed any appreciable increase. The results in detection remained the same, 46 per cent. of the cases dealt with being convicted. Ordinary thefts declined slightly by 152 cases to 11,669 and the ratio of convictions to cases dealt with remained the same as in 1917, namely 49 per cent. The total value of the property stolen was Rs. 6·18 lakhs, of which Rs. 1·39 lakhs, or 22 per cent., was recovered.

Important incidents.

37. Perhaps the most important criminal event of the year was a serious outbreak on the 5th of April 1918 at the subsidiary jail at Kyaiklat. Two men were taken out of the cage to water plants in the jail compound at about 4-30 p.m. When they were being put back into the cage and while the trap door was unlocked, one of the prisoners suddenly attacked the sentry from behind, while the other one seized his rifle. In the meantime the prisoners in the cage rushed out and overpowered the rest of the guard. The keys were seized and the remaining cages in the subsidiary jail were opened and all the prisoners were released. They took possession of the Government arms and ammunition in the police-station, broke open the treasury and obtained possession of money and property valued at Rs. 27,178 and made off. Forty-one prisoners escaped. Of these, 3 were killed in the Hanthawaddy District and 32 were re-arrested by the combined efforts of the Civil and Military Police, and 6 were still at large at the end of the year. Of those re-arrested, 29 were sent up for trial and were convicted, the remaining 3 cases being under trial at the end of the year. Property to the value of Rs. 11,022 was recovered. Two Civil Police carbines and one Martini-Henri rifle remain unaccounted for.

When the outbreak occurred the Military Police Jemadar in charge of the post and two Sub-Inspectors displayed great cowardice and were dismissed, as were also three sepoys on duty at the time. The enquiry held revealed serious defects in the administration of subsidiary jails, and steps are being taken to reduce the need for such jails at out-stations, by transferring to district headquarters the trial of cases of serious crime, which have hitherto been permitted at subdivisional and township headquarters.

The list of murder cases reported exhibits the usual brutality and disregard of life shown by the Burman. In Hanthawaddy, a woman enticed away a boy 6 years old, and, for the sake of his gold ear-rings and silver anklets, smothered him and threw the body into the stream. The woman was sentenced to transportation for life. In Toungoo, a girl of 12 or 13 years was convicted to transportation for murdering a school fellow aged 9. The motive was to obtain some gold ear-rings and a pair of bangles, which the deceased was wearing. In Prome, a lad of 15 years criminally assaulted a girl aged 5 years; in stifling her cries he injured her throat with a pointed bamboo so severely that she died. A boy 7 years old, who witnessed the outrage, was also murdered by this youth, who was sentenced to transportation for life. In the same district a man, to revenge himself on the parents of a 5-year old child, decoyed her into the jungle and murdered her. Another case occurred in which a party of villagers searching for stolen cattle met two youths gathering mushrooms. They suspected them, and the lads were hacked to death, although there was not the slightest ground for suspicion that these boys actually had stolen the cattle.

A particularly brutal murder with rape and robbery was committed in the Myaungmya District. A large boat was found floating in the river and was identified as that of a villager, who, with his wife, had disappeared. After investigation it was found that the boat owner and his wife had gone to a certain village for firewood and after loading up their boat started on the return journey. Three men followed and overtook them on the river. They drank tea with them and suddenly set upon them. With one blow from a *dah* the boat owner was killed and thrown into the river. The wife was then ravished and stabbed three times. She then fell into the river and one of the murderers jumping in after her, hacked her with a *dah* until she sank. The corpses were not found.

In the Amherst District, the Township Officer of Kya-in, Maung Ta Dut, was stabbed in bed at night while on tour. Although many theories have been advanced for the cause of the crime, the true reason has never been discovered. The police investigated the case with great thoroughness, but were unable to bring the offenders to justice. In Tavoy, an Indian Head Constable was murdered at dusk, while on point duty near one of the most crowded crossings in the town. His murderer approached him from the back and stabbed him in the neck, death being practically instantaneous. The deceased Head Constable had been particularly zealous in the performance of his duties, and it is surmised that his energy led to his murder by a local bully. A Head Constable in the Pakôkku District was murdered by an absconder, whom he was endeavouring to arrest for dacoity. The absconder made good his escape, but was arrested some days later after having poisoned himself with a native drug. He died on the day he was arrested. Two Constables in the Minbu District were murdered, but in neither case was the culprit traced.

An unusual case was reported from the Shwebo District. A woman, whose daughter had been suffering from insanity for some time past, consulted a Burmese doctor, who together with 5 assistants treated the patient by putting eye-lotion into her eyes. The patient then became violent and attacked the doctor, whereupon she was beaten and kicked. Finally her hands were tied up with ropes and she was again beaten. At midnight the patient became unconscious and died. The corpse was then rolled up in a mat and buried near by, a report being made to the headman that the girl had died of cholera. The matter, on being reported to the Police, was investigated, and the doctor and his assistants were sent up for trial and convicted.

An attempt was made in the Pyapôn District by an *ex-thugyi* of the Insein District to organize a gang of dacoits. This man had absconded, as he had

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gambled with and lost Rs. 1,000 Government revenue. He was captured by the Dedayè Police with a Government gun and some cartridges. A number of his followers were arrested in different places, and great credit is due to the Police Officers of the Pyapôn District for their activity in rounding up this embryo gang.

Nga Po Set, the leader of a gang of dacoits in the Thayetmyo District, was killed on the 11th of February 1918. An armed police patrol was resting in a village, when suddenly Nga Po Set accompanied by another man rushed into the village and fired twice at the patrol with a double-barrelled gun, a Karen sepoy being wounded in the thigh. The Police party then opened fire and Nga Po Set was shot and killed as he was running away. His accomplice made good his escape with the rest of the gang, who were waiting outside the village. A flint lock gun and some cartridges were recovered. Of this gang, two were killed, two were convicted and one is still at large. The Po Kyan-Tun Wa gang, mentioned in last year's report, has been broken up at last. Po Maung, one of the leaders, was wounded by Po Kyan, as the latter suspected that he was about to surrender. Po Maung then fell into the hands of the Police and the guns belonging to Po Maung and Tun Wa have been captured. Po Kyan and Tun Wa are still at large and are being closely pursued. This gang was responsible for six armed dacoities. The two men, Nga Ya Gyaw and Nga Kya Yan, who broke away from Nga Kala's gang in 1917 and started operations in the Minbu and Thayetmyo Districts, have been accounted for. Nga Ya Gyaw and Nga Kya Yan were shot dead by an armed patrol party of the Thayetmyo District. Good work was done by Sub-Inspector Maung Bo of the Magwe District in arresting Nga Pan Aung, who had formed a dacoit gang in the Thayetmyo District. A Winchester repeating shot gun was recovered, but it was not found possible to send Nga Pan Aung up for trial.

An interesting account is given of operations against dacoits in the Meiktila District. In the first dacoity that took place during the year, the villagers resisted and captured one man, who proved to be the well-known dacoit, Nga Tin Saw Gyi. This man made a statement, and, from the information given, Inspector Maung Po Hnone of the Criminal Investigation Department established the identity of a number of men, who had committed several dacoities and other crimes in the Meiktila and surrounding districts during 1917. The gang numbering 17 was under the leadership of Nga San Mya. Eight members of this gang were placed on security under section 110, Code of Criminal Procedure. Nga Tin Saw Gyi was convicted of dacoity and sentenced to transportation.

A series of undetected cases with firearms then took place, and it was found that an old gang had broken out again under the leadership of a certain Nga Kyi Nyo. Nga Kyi Nyo and 8 others were dealt with under the Village Act, and one man was placed on security in the Meiktila District and two in the Pakôkku District. A third gang was then identified under the leadership of Nga Shwe Daung, who had only recently arrived from Pegu. This gang was arrested by the villagers at Nebugôn, where, in the course of a dacoity, one of them was killed and 3 guns were recovered. Another dacoit was wounded and arrested by Inspector Maung San Bu after a long chase, while Nga Shwe Daung was also arrested. Nga Shwe Daung has been placed on security under section 110, Criminal Procedure Code. The effects of this good work are apparent, and since the dacoity at Nebugôn in September, no case of dacoity with firearms had been reported up to the end of the year.

The Myingyan District was also subjected to an outbreak of dacoities and two formidable gangs were discovered, the first being led by Nga Po Hmi, who possessed two muzzle-loading guns and committed a number of dacoities It was not possible to obtain evidence against them in the actual cases and Nga Po Hmi and his brothers were ordered to reside in Katha. The gang continued their depredations, but finally surrendered two guns. Towards the end of the year another most formidable gang armed with revolvers, under the leadership of Nga Tha Hpein of the Meiktila District was discovered. Deputy Superintendent Maung Gale and Inspector Maung Po Hnone were able to detect two cases committed by this gang and to recover one revolver. The case was pending at the end of the year.

CHAP. III.—PROTECTION. Offences under Special Acts

38. There were 7,289 true cases dealt with under the Excise Act as against 6,652 in the previous year. The increase (637 cases) is probably due to the new Excise Act, under which certain offences, which in previous years were non-cognizable, are now cognizable by the Police. Of the number of cases dealt with, the Police were responsible for 2,144, and the Excise Department for 4,158. Of 7,155 cases tried, 6,530, or 91 per cent., resulted in conviction. The number of persons dealt with was 8,667, of whom 8,542 were tried, and 6,820, or 79 per cent. of the persons dealt with and 80 per cent. of those tried, were convicted. The increase of cases is by no means common to all districts. It was most marked in the Pegu, Prome, Henzada, Shwebo, Kyauksè, Myingyan and Akyab Districts. Cocaine smuggling is still prevalent in the Pegu, Bassein and Pyapôn Districts, where a certain number of big seizures were made. Tharrawaddy, Amherst and Toungoo report small seizures. It is strange that in Henzada, which used to be notorious for cocaine smuggling, not a single seizure was made during the year. The largest seizure of ganja in any one case is once again reported from Tharrawaddy (20,248 tolas). In Kyauksè a village headman discovered 9,030 tolas of ganja in a bush at the foot of the Bilin Hill.

The closing of 12 liquor shops in the Kyônpyaw Subdivision of the Bassein District in 1917 has been accompanied by a marked decrease in serious crime, without any apparent increase in illicit distillation, and further results are being watched with interest, with a view to broadening the area and scope of the experiment, if it is found to succeed.

A further decrease of 94 cases under the Opium Act is reported, the total number of true cases dealt with being 1,756. The number of cases tried was 1,736, of which 1,669, or 96 per cent., were convicted. Of 2,592 persons dealt with, 2,521 were sent for trial and 2,074 were convicted. The results in all districts were practically the same as in 1917. No large seizures of opium were made during the year. The state of the opium market in China, which has taken most of the Shan opium at a higher price than that obtainable in Burma, probably prevented any appreciable amount of Shan opium coming into the country, and the scarcity of steamers restricted the smuggling of large supplies from the Far East, or from Indian ports. The number of successful prosecutions under section 3 of the Burma Opium Law Amendment Act rose from 191 to 209, the Myaungmya, Henzada and Prome Districts showing the best results. Offences under the Gambling Act increased from 3,607 to 3,900, the number of cases sent for trial from 3,572 to 3,831 and the ratio of convictions from 77 to 78 per cent. The number of prosecutions under section 17 of the Gambling Act, which is a preventive section directed against professional gamblers, declined from 130 to 110 and the number of convictions from 92 to 77. The intimate connection between gambling and the more serious forms of crime was strikingly illustrated in the Bassein District, where 3 murders, 2 dacoities and 3 robberies were directly attributable to cock-fighting, or other forms of gambling.

There were 644 cases under the Arms Act, or practically the same number as in the previous year. Results were satisfactory and 78 per cent. of the 803 persons tried were convicted. The number of guns surrendered declined heavily from 126 to 13, and the special measures taken in the Akyab District to recover unlicensed firearms were discontinued. A theft of 30lbs. of dynamite, 100 detonators and 3 coils of fuse, dating from the year 1916, was detected, and the thief was convicted during the year. In the Meiktila District 3 revolvers and some ammunition, which had been stolen from various British officers of the 70th Burma Rifles, were all recovered, as were also 2 revolvers and ammunition stolen in the Minbu District. Including a number of temporary licenses, the number of licensed firearms declined by 51 to 2,555. The policy of arming approved village headmen with Government guns was attended with good results.

Non-cognizable crime.

39. The number of true cases of non-cognizable crime declined by 3,414 to 36,852 cases. The decrease was shared by nearly all districts, and was mainly attributable to a reduction of 3,149 in the number of offences against Special and Local Laws. The most noticeable reduction took place in the Mandalay District, where prosecutions under the Municipal Act fell by 1,696 cases. The ratio of

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convictions to cases dealt with fell from 73 to 71 per cent. The small number of prosecutions for bringing false cases as compared with the number of cases declared to be false was again the subject of adverse comment.

Preventive sections, surveillance and identification.

40. There was a still further reduction in the number of cases under the preventive sections of the Code of Criminal Procedure. The number of persons brought before the Courts fell from 1,557 to 1,486 and the number of persons called on to furnish security from 1,323 to 1,209. The percentage of convictions fell from 85 to 81 per cent. Proposals with a view to ensuring the more careful preparation of these cases are at present under the consideration of the Local Government.

The number of men borne on the surveillance registers of the police fell from 8,727 to 7,821 and that of conditionally released prisoners from 400 to 336. Of these men, 5,861 were actually under surveillance, 1,677 were in jail and 619 were evading observation. The number of ticket-of-leave convicts sent to work in the Tavoy District increased from 615 to 1,029. Of these, 266 were released during the year, 27 being permitted to remain in Tavoy, 79 were sent back to jail, 15 absconded, 11 died and 2 were reconvicted. Though the system proved a success on the whole, yet its ultimate effect on the criminality of the district caused some misgivings.

The number of absconders advertised during the year fell from 1,888 to 1,665, and the number of arrested from 1,405 to 1,306. The number of persons, whose names were cancelled on account of death and other causes, rose from 423 to 650. The total number of absconders evading arrest at the end of the year was 4,327, the three districts of Tharrawaddy, Pegu and Hanthawaddy accounting for more than a quarter of the total. Good work in the arrest of absconders was done in the Hanthawaddy, Bassein and Pegu Districts.

The number of prisoners with previous convictions, who were identified by the police before sentence, fell from 4,902, of whom 1,709 had three or more previous convictions, to 4,511, of whom 1,449 had three or more previous convictions. The number of slips received and accepted for record rose from 15,176 to 15,933 and the number of slips withdrawn from 5,725 to 6,228. There was a satisfactory decline from 3,229 to 1,590 in the number of rejected slips. The total number of slips on record at the end of the year rose from 171,575 to 181,280. The number of subordinate officers trained in finger-print work during the year increased further from 129 to 163. The number of search slips received increased from 7,526 to 7,942, and of cases in which previous convictions were traced from 1,903 to 1,987, of which 53 cases concerned absconders and 96 cases were those of surveillance criminals, whose absence had not been reported. An auxiliary finger-print bureau was established at Yenangyaung during the year to deal with workers on the oil-fields. Expert evidence was given in 253 cases, of which 173 were criminal, as compared with 209 cases, of which 147 were criminal in the previous year. Expert opinion was given in writing in 318 cases, of which 288 cases were finger-prints on pawn tickets.

The Criminal Investigation Department was much occupied with the preparation of material for action under the Criminal Tribes Act and enquiries into the antecedents of members of dacoit gangs. The investigation of Post Office cases and the arresting of military deserters also cast much extra work on the Department. Fifty-seven cases were investigated during the year, of which 20 were convicted. Over 90 deserters from various military units were arrested during the year, besides 22 absconders wanted in different districts. There was a remarkable increase from 21 to 88 in the number of cases of forging Government currency notes.

Punitive Police.

41. Additional police of a total strength of 405 officers and men continued to be entertained in the Hanthawaddy, Pegu and Toungoo Districts, while the additional forces formerly maintained in the Tharrawaddy, Prome and Thatôn Districts were disbanded during the year.

42. The strength of the Railway Police was revised during the year and the cadre was reduced by 14 Sub-Inspectors and 20 Constables and increased by 14 Head Constables. The strength of the staff now stands at 414 officers and men, with a resultant saving in cost of Rs. 15,691. The conduct of the force continued to improve and there were no dismissals and only two cases of removal as a result of magisterial convictions. Departmental punishments decreased from 49 to 35, and rewards increased from 60 to 80. Twenty-eight recruits attended the training depôt and 18 passed out, 9 with first class certificates. Seventy-four men underwent a course of recurrent training and 15 were instructed in First-Aid to the Injured, of whom 11 qualified for certificates. All officers fired the prescribed revolver course and a prize competition was held. CHAP. III.—PROTECTION. Railway Police.

Excluding cases in which investigation was refused, or which were classified as false or mistaken, or which were compounded, the number of true cases dealt with by the Railway Police rose from 1,391 to 1,653. The number of persons finally dealt with increased from 1,532 to 1,875 and the ratio of convictions to persons dealt with from 73 to 79 per cent. There was an increase of 112 in the number of minor offences against property, most of which were ordinary thefts from railway waggons, from which either one or both labels were missing. There was also a substantial increase from 437 to 653 in the number of cases of public nuisance. This increase was chiefly due to more careful control of the traffic at the Rangoon Railway Station. Cases of house-breaking fell from 81 to 66, but attempts to derail trains increased from 11 to 15, convictions being obtained in 3 cases as compared with one case in the previous year. The number of cases dealt with under the Excise and Opium Acts fell from 110 to 102, of which 88 were convicted. There were 16 successful prosecutions under the Arms Act, and 4 revolvers together with a locally-made gun and ammunition were seized.

There were 11 true cases of violent crime during the year as against 7 in the previous year. Of these 11 cases, 5 were robberies, 3 murders, 1 culpable homicide and 2 house-breaking cases. Three cases of robbery and one case of culpable homicide were convicted. All three murder cases were undetected and two cases each of robbery and house-breaking were acquitted or discharged.

The number of criminals on the surveillance registers fell from 416 to 334 and close attention was paid to this class of criminal. The number of absconders at large at the end of the year rose from 50 to 55. Ninety prisoners, of whom 28 had three or more previous convictions, were identified before sentences, and 7 Sub-Inspectors were trained in elementary finger-print work.

43. At the end of the year of report the actual strength of the Military Police-force was 15,996 Indian officers, non-commissioned officers and men, or 413 below the sanctioned strength. In consequence of the decision to enlist Burmans for the Army only, the two Burmese companies in the Shwebo Battalion were disbanded and replaced by one company of Karens and one company of Rajputs. The Shan company of the Southern Shan States was also disbanded, owing to lack of recruits and the failure of the Shan to make an efficient Military Police-man, and was replaced by one company of Gurkhas. There were also reductions in Sikh, Hindustani Mahomedan, Punjabi Mahomedan and Jat companies, owing to lack of recruits, and increases in Gurkhas, Karens and United Provinces classes. Military Police.

The Salween Battalion was amalgamated with the Reserve Battalion. The strength of the Bhamo Battalion was reduced and that of the Northern Shan States Battalion increased by half a company. Twenty-five Mounted Infantry were permanently transferred from the Putao to the Myitkyina Battalion.

A permanent post of 75 rifles was established at Bumkhang in the Putao District and the temporary post of 75 rifles at Könglu was made permanent. The site of the temporary post at Auchè in the Myitkyina District was transferred to Lonjao-kong. Temporary posts were established at Wituk, Tinzin, Sibong in the Kubaw Valley, and Naungbin, Kapi and Mindat in the Chin Hills, in consequence of the Chin and Kuki outbreaks. The posts at Shwenyaungbin in the Ruby Mines District, Talawgyi in the Myitkyina District and Kyaukpadaung in the Myingyan District were abolished, and the Thazi post in the Meiktila District

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was handed over to the Civil Police. The strength of a large number of posts had to be temporarily reduced to find men for the Kuki punitive measures.

The Yenangyaung Oil-fields Police-force of 283 men was raised from the Military Police. The Hindustani Hindu element, however, was found unsuitable and withdrawn, and will be replaced by other classes.

The operations described in last year's report were continued both in the Chin Hills and in the Kuki Tracts of Assam and Burma. In the Haka Subdivision of the Chin Hills, Captain Falkland marched on Kapi, but spared it, as the Chief proved to be loyal. He then prceeded to deal with recalcitrant villages to the south. The column was out till the 4th April, and out of 17 villages visited, 9 were burnt. The result of the operations was the total surrender of the Hsentung and Yotun Tracts. Meanwhile Major Wright obtained the surrender of Kusa and the partial surrender of Saungtiya, whilst Captain Montefiore with a force of Assam Rifles compelled the submission of Bwenlon. On the return of these columns to Haka, a column was sent out under Major Burne through Dongvar and Laitak to join Captain Falkland near Naring. The rebels, however, retired and all endeavours to bring in the Lawhtu tribe were in vain. A post for the rains was built at Kapi, 30 miles south of Haka, and operations were discontinued in this area. During the same period, columns were sent out among the tribes to the west. Two villages of the Klangklang tribe, Rawkwa and Saika, broke into open rebellion and were burnt by Captain Montefiore. The Bwes and Wantus to the south of the Klangklangs also gave much trouble, but as the result of successful operations by Captain Broome against Laitak, Aiburr and Hripi, they gave in. The result of the season's operations in the Chin Hills was the complete surrender of all rebel villages, except the Lawhtu and Ngapai groups, and the capture of 527 guns.

In the Upper Chindwin District the Kukis in Thaungdut and the Somra Tract rose in sympathy with their kinsmen in Manipur. Early in the year, Mr. Parker, I.C.S., Subdivisional Officer, Homalin, was sent with 50 rifles into the Thaungdut State, to endeavour to dissuade the Kukis from rising. His mission failed and he was attacked. This necessitated a punitive expedition, which was carried out under the command of Major Hackett, who pushed a mule track into south Somra as far as Paisat, after burning all villages belonging to the rebel Chief Shempu and nearly all rebel villages in the Thaungdut State. Arrangements were also made by the Governments of Burma and Assam for co-operation against the Manipur Kukis. A column under Captain Patrick, M.C., marched through the Kubaw Valley, and two Manipur columns marched from Imphal through South Manipur. A column under Lieutenant Stedman, M.C., Assistant Commandant, Tiddim, marched from Lenacot in the Northern Chin Hills to join one of the Manipur columns, but met with strong resistance and was forced to retire, Lieutenant Stedman being severely wounded. Later, a reorganized stronger column was sent under the command of Captain Montefiore, Assam Rifles, and the villages which had resisted were severely punished. In March Captain Patrick, M.C., joined a Manipur column in an attack on Chassad, which was occupied. The combined columns then proceeded to deal with the remaining rebel villages in this area. On the return of Captain Patrick, M.C., the Manipur column joined Major Hackett, and then proceeded *vid* Kindat and Tinzin to punish the villages of South Manipur. At the beginning of the rains, a number of smaller Chiefs between the Chassad and Mombi areas had surrendered, but Mombi and Chassad, on whose submission the surrender of the Thaungdut and South Somra Kukis depended, were still in arms. In Thaungdut State, the Kuki villages near Chassad and north of the Nampanga River, and in Somra the villages under Shempu's influence had refused to submit. The columns were withdrawn and posts were established at Sibong, Wituk and Tinzin, for the protection of the Kubaw Valley. It was subsequently arranged that strong measures should be taken against the rebel Kukis in the following cold weather, the operations being under the control of the General Officer Commanding, Burma Division, and a force of some 5,000 Military Police from Assam and Burma was placed by the Local Governments at his disposal. Colonel ffrench-Mullen, C.I.E., Deputy Inspector-General of Military Police, was placed on special duty to carry out the staff work in connection with

the Military Police columns sent from Burma, and became Chief Staff Officer to the General Officer Commanding. The Burma Military Police supplied 8 British Officers and 2,131 men, and operations were in full swing at the close of the year.

False reports of reverses in Haka led to restlessness in the Pakôkku Hill Tracts. In April, the Superintendent, Mr. Fischer, accompanied by the Assistant Commandant, Mr. Alexander (Imperial Police), and a small escort of Military Police visited Chanim, which was reported to be in an excited state. On entering the village, they were treacherously attacked, Mr. Alexander being severely wounded and a Havildar killed. As the party was insufficient for offensive action it was obliged to withdraw. Subsequently, on the arrival of reinforcements from the plains, a column commanded by Lieutenant French, Burma Military Police, inflicted the necessary punishment on the village. The unadministered tribes of the neighbourhood and the remainder of the administered villages remained quiet and there has been no further trouble.

The operations of the Burma Military Police, both in the Chin Hills and in the Kuki Hills, were in the general charge of the Deputy Inspector-General of Military Police, Lieutenant-Colonel J. L. W. ffrench-Mullen, C.I.E., the Assam Rifles forces being under Colonel L. W. Shakespear, C.B., the Deputy Inspector-General, Assam Rifles.

The total casualties incurred in the above operations by the Burma Military Police were—

Killed.—Mr. C. E. W. Molesworth, District Superintendent of Police and Assistant Commandant, and 38 rank and file.

Wounded.—Lieutenant H. Stedman, M.C., Assistant Commandant, Mr. H. R. Alexander, District Superintendent of Police and Assistant Commandant, and 98 rank and file.

But the number of casualties and the brief résumé of events given above cannot convey any indication of the nature of the operations and of the dogged pluck and endurance displayed by the officers and men of the Burma Military Police and Assam Rifles who took part in them. There is nothing more disheartening than chasing the elusive savage through his own dense jungles with the very remote chance of "downing" a sniper. Moreover, almost every moment of the 24 hours, whether in camp or on the march, there is danger of a shot from the surrounding jungle. All concerned deserve great praise for good work, efficiently and cheerfully done under new conditions and strange surroundings.

In spite of the heavy demand for men for frontier operations, 1,825 volunteers of all castes were supplied to the various units, bringing the total number despatched since war broke out up to 11,683. War casualties reported during the year were 54 killed, 12 died of wounds, 137 died from other causes, 11 missing, 166 wounded, 64 invalided, total 444. The total number of casualties since the beginning of the war is 1,776. Thirty-nine war honours were gained during the year: 1 Military Cross, 4 Indian Orders of Merit, 16 Indian Distinguished Service Medals, 2 bars to I.D.S.Ms., 11 Meritorious Service Medals, 2 Orders of British India, 2 Croix-de-guerre and 1 Medaille Militaire. It is interesting to note that the Medaille Militaire was won by a Kachin of the Myitkyina Battalion. The total number of decorations won up to date is 56, comprising 1 Military Cross, 8 Indian Orders of Merit, 26 Indian Distinguished Service Medals, 2 bars to I.D.S.Ms., 12 Meritorious Service Medals, 3 Orders of British India, 2 Croix-de-guerre, 1 Cross of St. George (Russian) and 1 Medaille Militaire.

The Burma Military Police Volunteers continued to earn the commendations of Commanding Officers. Concerning the Burma Mounted Rifles, a unit formed entirely from Burma Military Police Mounted Infantry (which was mounted exclusively on Burman ponies), Brigadier-General Sir P. M. Sykes, K.C.I.E., C.M.G., General Officer Commanding South Persia, wired to the Chief of the General Staff, Simla, as follows:—

Should be grateful if you convey to the Inspector-General of Police, Burma Military Police, my high appreciation of the discipline, gallantry and soldierly spirit of all ranks of the Burma Mounted Rifles. This unit has been uniformly successful in every action in which it has taken part in Persia during the past year.

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This message was passed on with the following remarks by the Commander-in-Chief in India :—

His Excellency the Commander-in Chief in India desires to add his appreciation of the fine spirit displayed by this unit.

The names of the officers and men of this unit were frequently mentioned in the despatches of the General Officer Commanding South Persia, and the following honours were awarded :—

One Distinguished Service Order (to Lieutenant-Colonel H. R. Dyer), 1 Order of British India, 2 Indian Orders of Merit, 11 Indian Distinguished Service Medals and 2 bars to I.D.S.Ms.

The total cost of the force for the financial year 1918-19 amounted to Rs. 72·77 lakhs compared with Rs. 62·04 lakhs in the previous year. There were increases of Rs. 7,07,128 under "Other Expenditure," Rs. 1.32 lakhs under "Police Food Supply" and Rs. 2·50 lakhs under "Debited through Exchange," due, respectively, to the Kuki operations, the high price of ghee and the re-armament of certain battalions with the M.L.E. rifle. The expenditure under the head "Political" was Rs. 4·51 lakhs compared with Rs. 4·04 lakhs in 1917-18. The increase was mainly due to the very high rates which had to be paid for transport.

The general health of the force was bad. Eight hundred and thirteen men died or were invalided compared with 830 in the previous year. There would appear to be a decrease, but as a matter of fact there was a large increase, as the number of men who died or were invalided on active service out of Burma, included in the figures for 1917, was not included this year. Six hundred and forty-seven proceeded on sick leave, and 19,689 were admitted to hospital as against 560 and 15,046 in 1917. The increase is entirely due to the influenza epidemic, which, starting from Rangoon, gradually made its way to the head-quarters and outposts of all battalions. Four thousand eight hundred and forty-nine cases occurred and 243 men died from influenza or its complications. It was especially virulent in the Northern Shan States, Myitkyina, and Chin Hills Battalions, where there were 793, 1,102 and 411 cases, respectively, and 51, 32 and 68 deaths. In the Chin Hills, a column of 100 men lost 16 within a fortnight. Malaria is said to be on the increase in the Northern Shan States, Bhamo and Myitkyina Battalions, despite the usual preventive measures. Mosquito curtains are now included in the free issue to recruits on enlistment, and it is hoped that there will be a material decrease in the number of cases. The difficulty is to make sepoys use their nets when away from official supervision. The only other epidemics of importance were outbreaks of mumps in the Bhamo (38) and Myitkyina (82) Battalions and of German measles in the Myitkyina Battalion (63). Fortunately, there were no deaths. Slight outbreaks of beri-beri occurred at Mônywa and Shwebo and at Kônglu in the Putao District, but a change of diet and the substitution of hand-pounded for machine-milled rice proved efficacious in the majority of cases and there were only 4 deaths.

Two thousand eight hundred and ten recruits were enlisted during the year, out of whom 738 were Gurkhas, 356 Karens, 335 Burmans, 262 Kachins, 245 Garhwalis, 215 Rajputs, 172 Hindustani Brahmans, 156 Kumaonis, 109 Ahirs, 62 Punjabi Mahomedans, 41 Dogras, 34 Gaur Brahmans, 27 Chins, 25 Shans, 14 Kurmis, 12 Sikhs, 4 Jats, 2 Hindustani Mahomedans and 1 Punjabi Hindu. The number of recruits enlisted in India was again very small, owing to Army control over recruiting and the superior terms offered by Army recruiters. Permission was received to enlist 50 Sikhs and 50 Punjabi Mahomedans from west of Lahore, an area closed to Military Police recruiters since the outbreak of the war, but the total result was 1 Punjabi Mahomedan and 2 Sikhs. Kumaoni recruiting was stopped in April, as all available recruits were required for newly formed Kumaoni Units. The physique of all recruits received before the signing of the Armistice was again very poor. Of indigenous races enlisted in Burma, the Burmans were obtained through the agencies of the local Recruiting Committees, and the rest by Military Police recruiters, or through the enthusiasm of local officials and elders. Particular enterprise and enthusiasm was displayed by the elders of the Karen Community in the Thatôn District in recruiting men of their own race and in looking after them subsequently. At their request, a local

depôt for preliminary training was established at Thatôn, and some 200 men of a particularly good type had been passed through it by the end of the year. Kachin recruiting was again poor, only 108 being obtained in the Bhamo Hill Tracts and 37 in the Myitkyina District, and even they were of a poor stamp, though every effort was made to secure suitable men. It is probable that the supply of young men in the Bhamo Hill Tracts has been exhausted, while in the Northern Shan States, the prosperity of the people arising from the great profits in the opium trade has militated against recruiting. Recruiting of all castes was stopped at the end of the year, owing to the surplus anticipated, as the result of large numbers of Military Police Volunteers returning from the army on demobilisation. Opportunity was again taken to have instructors trained at army classes, and a number of men qualified in the Physical Training and Bayonet fighting course at Poona and the various machine gun, Lewis gun, musketry and bombing courses held at Mhow and Satara. The former high standard of signalling was fully maintained and eight non-commissioned officers underwent a course of instruction in Feld Telephone work at Solan. Previous to their despatch to the scene of frontier operations, the men selected were put through special courses of musketry and jungle warfare, and a number of men were trained in the Stokes Mortar and Lewis gun at Taunggyi.

The sanctioned strength of Mounted Infantry ponies was reduced from 1,168 to 1,000. The reductions were effected in the Chindwin Battalion (62), Mandalay Battalion (91) and Rangoon Battalion (15), as it was ascertained after careful inquiry that they were in excess of requirements. Of the surplus ponies, 150 were required to increase the transport of the Myitkyina Battalion and 18 transferred to the Police School at Mandalay. The actual strength on the 31st December 1918 was 905, or 95 short. There were 131 casualties. A severe outbreak of Surra occurred in May in the Kubaw Valley, where over 100 ponies were stationed in connection with the Kuki operations. Unfortunately, the rains broke early and demobilisation was somewhat prolonged, with the result that 32 Mounted Infantry and 30 transport animals died of the disease. One hundred and forty-two remounts were purchased.

The actual number of transport animals at the close of the year was 937, against a sanctioned strength of 1,180. The transport of the Myitkyina Battalion was increased by 150, with the object of reducing the number of hired mules and thus making the battalion more independent of mule contractors. The number of casualties amounted to 213 compared with 190 in the previous year and 160 in 1916. This increasing death-roll is mainly due to the ravages of Surra, which accounted for 119 animals during the year. The largest number of cases occurred in the Myitkyina Battalion (57), and in the Chindwin Battalion (37). The experiment is being tried in the Myitkyina Battalion of replacing a number of mules by pack bullocks, which are very little subject to Surra. Great difficulty continued to be experienced in either purchasing or hiring mules, and such as were obtainable commanded considerably enhanced rates.

Though musketry was much interfered with by column operations, 11,222 men, or 70 per cent. of the force, fired the annual course. The standard attained was not altogether satisfactory, and the need for the proposed new musketry school at Pyawbwè was clearly demonstrated. Casualties in the force rose from 1,179 to 1,680, chiefly owing to an increased number of deaths, resignations and desertions. Deaths rose from 341 to 490, owing to the influenza epidemic, and resignations increased, owing to the disbandment of Burmese and Shan companies in the Shwebo and Southern Shan States Battalions, respectively. The increase from 187 to 302 in the number of desertions took place mainly amongst Shans, Kachins and Gurkhas. Half the Shan company at Taunggyi deserted from fear of being sent on active service in the Chin Hills, whilst in the case of Gurkhas the desertions took place while the men were on leave. The number of punishments decreased from 1,674 to 1,454 and numerous rewards were given for good conduct and work.

The Myitkyina, Bhamo, Chin Hills, Northern and Southern Shan States, Shwebo, Reserve and Arakan Hill Tracts Battalions were re-armed with the long pattern non-charger loading M.L.E. rifles, and revolvers were supplied to

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the Indian Officers of the first five battalions. The question of re-arming the Military Police with a new weapon, in place of the old seven-pounders, which are worn out, was taken up and the Government of India suggested the 3-inch Trench Howitzer, known as the Stokes Mortar. Three were loaned for the frontier operations of 1918-19, with a view to practical trial, and if the report is favourable, they will be adopted. A supply of Lewis guns, which were used in the operations of 1917-18 with good effect, is another necessity.

A satisfactory improvement in the care and repair of arms was effected in the case of most Battalions. The shortage of British Officers continued to be felt during the year and it was necessary to utilise the services of members of the Burma Commission and of the Civil Police to officer the force. Good service was also rendered by the ten experienced Indian Officers, promoted to the rank of Naib Commandant, as explained in last year's report.

Rangoon Town Police

44. The sanctioned strength of the Rangoon Town Police, including Port, Hackney Carriage and Temporary Police, was the same as last year, namely 106 officers and 1,246 men, but the actual strength at the end of the year was short of the sanctioned strength by 3 officers and 88 men. Though the number of men enlisted increased from 136 to 203, this result was only secured by lowering the normal standard and enlisting men who were undesirable from a physical and racial point of view. The difficulty of approximating to the sanctioned strength is serious, as recently reclaimed areas in East Rangoon stand in urgent need of policing. It is hoped, however, that with the conclusion of peace a suitable type of recruits will be forthcoming in sufficient numbers.

The cost of the force increased from Rs. 6·81 lakhs to Rs. 7·07 lakhs. The conduct of the force continued to be good and was even better than in 1917. Thirteen men were dismissed, one officer and 13 men were removed, 19 men were discharged and six officers and 76 men were otherwise punished. The number of resignations was again very high, amounting to no less than one officer and 89 men as compared with one officer and 77 men during the previous year. The resignations were mainly due to domestic trouble in India, owing to the war, and the high incidence of living. One officer and 12 men died during the year and three officers and 35 men retired on pension or gratuity. Fourteen officers and 407 men received money rewards from funds at the disposal of the Commissioner of Police as against six officers and 484 men in the previous year. In addition to the above, nine officers and 30 men received money rewards from other districts, or from the Excise or Military Departments, or from private persons. One man was granted special promotion, thirty-five men were awarded good conduct stripes and five officers and sixteen men were granted good service certificates. The work of 13 officers and three men received magisterial commendation and the long and good service of one Deputy Superintendent was recognised by the award of the K.S.M. decoration. In all, 207 men passed through the training depôt as against 136 in the previous year, but, owing to the shortage of strength, no recurrent training was possible. The health of the force was bad, nearly 50 per cent. of the force having been treated in hospital, mostly as in-patients, during the year. The influenza epidemic was responsible for a considerable portion of this bad record, but a portion must also be ascribed to bad housing and pressure of work due to shortage of strength and consequent inability to obtain leave. The urgent need of accommodation was recognised by the Local Government and steps are being taken to provide quarters at Pabedan, Kyauktada and Ahlone Police-stations.

Cognizable cases of true crime increased from 1,518 to 1,783, while the percentage of convictions in true cases investigated fell from 62 to 58 per cent. On the other hand, minor offences and offences against special and local laws showed a remarkable decrease of 3,445 cases and the number dropped from 8,745 to 5,300. The factors responsible for the increase in ordinary crime are the unrest and unfavourable economic conditions prevailing throughout the year, the abnormal rise of the price of foodstuffs that occurred in the middle of the year,

the rapid growth in population of the recently reclaimed areas, which through shortage of strength remain inadequately policed, and the large number of deserters from military units, who were wandering penniless about the town. Of these deserters, two were convicted of robbery, one of housebreaking, one of theft, one of cheating and four arrested for petty thefts were handed over to the military authorities, and it may fairly be assumed that the number of undetected offences committed by them greatly exceed the detected ones. A feature of the year has been the appearance of quite a large number of forged one-rupee currency notes, and these forgeries account for 31 of the total increase of 265 offences. The striking decline in the number of prosecutions for public and local nuisances is ascribed by the Commissioner of Police to the adoption of more cumbrous, if more regular, methods of procedure. Formerly, a person committing a nuisance or obstruction was forthwith arrested, whereas now his name is noted and a summons is applied for and has to be served.

There was a certain amount of political unrest during the year and consistent attempts by Indian agitators to capture Burman opinion, not wholly without success, have been made. The Burma Reform Scheme has given birth to a large number of associations, all claiming to voice the opinion of the masses, and an election of pagoda trustees, which resolved itself into a struggle between the conservative older generation and the more progressive younger generation, caused some anxiety, owing to the bitterness of the rivalry engendered. More serious was the unrest fomented by Indian agitators, but, owing to the firm attitude of Government and appropriate action taken by the police, no serious results ensued. The first sign of unrest was manifested on the 12th August 1918, when the shipping coolies struck for a 100 per cent. increase in wages, on the ground of increased cost of living. As they were being paid Re. 1 per diem, it was clear their grievances had no real foundation, and their action threatened serious delays to Government transports. The grant of a 25 per cent. increase of wages and the threatened deportation of certain coolie maistries speedily put an end to the strike. Four members of the Social Service League were convicted in connection with the strike, the conviction being upheld by the Chief Court, but they were subsequently released by Government, as an act of clemency on "Victory Day." In September an article, which appeared in one of the Calcutta newspapers, caused widespread resentment amongst Mahomedans throughout India, and inflammatory circulars calling for mass meetings were circulated. Owing to the sensible and loyal attitude of the leading *moulvies* in Rangoon, the prohibition of the meeting called for the 8th September left no aftermath of bitterness. Later in the month, the abnormal rise in the price of foodstuffs and the issue of the new income-tax forms gave mischief makers a further opportunity, and serious panics occurred on three occasions early in October. The prompt action taken by the police immediately allayed the unrest and no looting or rioting took place.

Offences against currency, murder, ordinary cases of theft and hurt, and breach of trust cases are responsible for the increase in ordinary crime. Currency cases increased from 9 to 40, and the increase is entirely due to numerous cases of forgery of one-rupee notes, believed to be manufactured in the Straits or in Dutch East India. Murders rose from 4 to 16 cases, but the increase is partially accounted for by the inclusion in this year's statistics of six cases, which occurred in 1917, and in which investigation was not complete till 1918. Only 6 out of the 16 cases of murder tried ended in conviction, though convictions were obtained in all five cases of culpable homicide tried. Robbery and dacoity both declined from 21 to 18 and from 4 to one case, respectively, but in only 9 of the robbery cases was a conviction obtained and only a small proportion of the property taken was recovered. In the case of the dacoity, the employment of a motor-car suggests the influence of the cinematograph on ill-developed minds. It was committed by a gang, who were subsequently convicted of a second case of dacoity under similar circumstances after the end of the year. In four of the robbery cases, revolvers were used, but it was only possible to detect one of them, though the perpetrators in another case are well known. Cases of lurking house trespass rose from 84 to 98, of ordinary theft from 744 to

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796 and of criminal breach of trust from 55 to 76. These increases are not abnormal or surprising, if the unfavourable economic conditions of the year are considered. There was a satisfactory increase in the percentage of stolen property recovered, which rose from 27 to 48 per cent.

Vigorous action was taken under the Excise, Opium and Gambling Acts. Under the Excise Act the police undertook prosecutions in 112 cases, or 34 more than in the previous year, though there was a marked decrease in the number of prosecutions by the Excise Department, and the total number of prosecutions under this Act fell from 690 to 324 cases. Of the 112 cases sent up by the police, no less than 107 were convicted. Opium cases numbered 106 as against 484 in the previous year. In this class of case also the Excise Department is responsible for the decline, as the police sent up 78 cases, of which 71 were convicted, as against only 13 in the previous year. Prosecutions under the Gambling Act increased from 127 to 258 cases, of which 235 ended in conviction. The Commissioner of Police is of opinion that more deterrent sentences are required in the case of professional gamblers, and the attention of all Magistrates has recently been drawn to the desirability of inflicting deterrent sentences on the promoters of gambling as distinct from mere participants. Under the Arms Act the satisfactory result of 31 convictions out of 32 true cases was obtained. The weapons seized included 9 revolvers, 2 revolver cylinders, 70 cartridges and 19 bullets, besides other miscellaneous weapons. The provisions of the Rangoon Police Act were employed in 314 cases, of which 90 per cent. were convicted, the figures being similar to those of the previous year.

The year opened with 441 criminals under surveillance and closed with 498, of whom 90 were in jail. Of 45 absconders proclaimed during the year, 21 were arrested, in addition to 10 old absconders of previous years. The police also succeeded in arresting 46 absconders, wanted by other districts, besides 10 deserters from military units. Prosecutions for drunkenness decreased from 1,371 to 1,063. Ward headmen and elders continued to render valuable aid to the police, and 37 were granted money rewards amounting to Rs. 675, and many others were rewarded by commendatory entries on their appointment certificates. Amongst other miscellaneous duties devolving on the police was the censorship of 86 vernacular plays, of which 25 were prohibited on religious grounds. Nine hundred and seventy-eight cinema films were censored by committees established for this purpose and four films were prohibited and objectionable portions of nine other films were deleted. Heavy work has also been entailed by the inspection of all passengers arriving in the port and the surveillance of political suspects. The statements of 1,390 Indian passengers from the Far East and African ports were recorded, 214,845 Indian passengers from Indian ports were examined and the passports of 2,253 Chinese immigrants were checked.

The port police had a busy year with 2,174 prosecutions for breaches of the port and harbour rules. A satisfactory feature of the year was that the depredations of rice thieves on the river were checked.

During the year 100 additional motor vehicles were registered and 616 drivers' licenses were issued. To cope with the extra work and to ensure an adequate standard of driving, the appointment of a whole-time Inspector of motor vehicles has been proposed.

Village Administration.

45. The year was marked by a very considerably accelerated decrease in the number of headmen in the Province. From 16,807 in 1917 the number fell to 16,257, a decrease of 550 compared with 252 in 1917 and 199 in 1916. The decrease is due to a more vigorous application of the policy of amalgamating village-tracts, when suitable opportunity offers, with the object of improving the status and increasing the efficiency of headmen through the medium of enlarged jurisdictions and thus enabling them to earn an increased commission. The number of amalgamations varied considerably in different divisions, but, generally speaking, it may be said that it does not seem probable that this policy has yet reached the limits of possible advantage, though careful consideration of the merits of each individual case is essential. Abolition of the jurisdictions of circle headmen, as distinct from village headmen, continued, the number of the

former declining by 24, with a consequent decrease of 207 in the number of subordinate headmen not receiving full commission. Progress has been general in the demarcation of village-tract boundaries and in the preparation of maps of their charges for the use of headmen. The useful practice of showing on charge maps and on appointment orders the communications to be maintained in each tract was extended to the whole of the Mandalay Division, and has been commended to the consideration of all Commissioners.

The number of headmen invested with special judicial powers continued to increase, and at the close of the year 1,826 headmen held special criminal, and 1,981 special civil powers, as compared with 1,724 and 1,905, respectively, last year. The extent to which these special powers are exercised is still generally very small, and there is a tendency to regard their possession more as a mark of personal distinction than as powers to be effectively utilised. This is, however, not universally true, and in the Sagaing Division headmen afforded considerable relief to the civil and criminal courts. The cognate question of the establishment of a system of village benches will receive attention, when the scheme of local self-government now under preparation is dealt with.

Though the provincial total of fines inflicted by headmen remained stationary at approximately Rs. 1,28,000, there was considerable divergence from last year's figures in individual districts, many showing a decrease and others a marked increase. The Sagaing Division shows an increase of 40 per cent., but local officers considered that the great majority of the fines inflicted were well deserved. An increase, of over 50 per cent., in the Insein District is attributable mainly to a special cause, namely the enforcement of segregation rules during an outbreak of rinderpest. In many districts headmen resorted to punishment other than fine where possible, or inflicted fines commensurate with the economic stringency of the times, a procedure reflecting credit on their discretion in using their powers. The number of headmen's cases examined by District officers declined considerably from 42,483 to 30,251, but little interference was necessary, and 29,430 were confirmed.

The revenue work of headmen was excellent in Upper Burma, but not quite so good in Lower Burma, more especially in the Arakan Division, which had a very bad revenue year. In that division the distress caused by lack of shipping and low paddy prices was alleviated by generous remissions and concessions, which had the unfortunate and somewhat unforeseen result of cutting down the commissions of headmen by half. The continued prevalence of temporary misappropriations of revenue by headmen in Lower Burma is regrettable, though such malversations are probably due more to laxity than to corruption.

Although a considerable amount of assistance was rendered by headmen in excise matters, much of this help was not spontaneous. The weakness of public opinion against illicit manufacture and sale not only assists the continuance of those practices, but deters the headman from fear of unpopularity from taking action on his own initiative. Encouraging signs were, however, shown by the Tharrawaddy District, where a vigorous campaign by the Deputy Commissioner succeeded in convincing the villagers to a considerable extent that help in excise matters means less crime. Relations between headmen and the police continued to be excellent. The policy of arming selected villages with guns as a protection against robbery and dacoity again had good results, a salutary deterrent effect being clearly apparent even where the weapons were not actually used in repelling attack.

The progress of sanitation is still somewhat slow, but there appears to be an increasing degree of confidence shown in inoculation as a preventive of disease. Suggestions have been made that the abolition of village fences is desirable in the interests of sanitation. No doubt, the crowding of a village inside a fence is responsible for much uncleanliness, but the requirements of sanitation and security are conflicting.

The number of punishments inflicted on headmen rose from 491 to 703, every division contributing to the increase. On the other hand, the number of rewards increased in every division, and the number of punishments cannot be considered excessive, if allowance is made for the heavy responsibilities of headmen and the

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numerous temptations to which they are exposed. In general, the conduct of headmen was good, and they rendered much excellent service in recruiting, in war fund collections and in lightening the task of administration during another year of war. A proposal for the appointment of a subordinate village official to relieve the headman of some of his drudgery and to supplement the collection of information by the village beat police officials is at present under consideration.

The number of fines inflicted on village-tracts fell from 236 to 194 and the amounts realised from Rs. 80,723 to Rs. 57,373. The Toungoo and Myingyan Districts showed substantial increases from *nil* to 6 and from 9 to 17, respectively. On the other hand, the number of fines dropped in Insein from 11 to 4, in Bassein from 12 to 6 and in Tharrawaddy from 22 to 8. Orders have issued requiring a higher standard of proof of complicity or knowledge on the part of villagers before such collective fines are imposed. Generally speaking, the improvement of village administration continued to receive the earnest attention of Government and District officers were encouraged to initiate cautious and well-considered experiments with this end in view.

Wild animals and snakes.

46. During the year 1918 ninety-five persons were killed by wild animals, other than snakes, as against 81 in 1917 and 75 in 1916. The Arakan Division, in which there were 25 deaths as compared with only 8 last year, is entirely responsible for the increase, the figures in other divisions remaining practically stationary. In the districts of that division 14 persons were killed by tigers, 6 by alligators, 2 by wild pigs, 2 by wild dogs and 1 by a panther. In the whole Province the number of deaths caused by tigers increased from 43 to 53 and those caused by alligators, wild pigs and wild dogs from 5 to 17. A wild ox and a bison were responsible for one death each. On the other hand, the number of deaths caused by elephants declined from 18 to 7.

The number of persons who died of snake-bite was 1,336 as against 1,473 in 1917. There was a remarkable increase in the Sagaing District, where snakes were responsible for 246 deaths as against only 89 in the previous year. On the other hand, mortality from this cause decreased considerably in the districts of the Meiktila and Magwe Divisions.

The number of wild animals, other than snakes, destroyed decreased from 5,873 to 4,832, and there was a consequential decrease in the amount of rewards paid from Rs. 76,339 to Rs. 70,227. The number of elephants killed increased considerably from 58 to 103, of which 84 were destroyed in the Ruby Mines District, in which special measures for their extermination were taken. There was a slight rise from 484 to 519 in the number of tigers destroyed, but a considerable fall from 2,974 to 2,395 in the number of leopards and panthers disposed of, the decline being most marked in the Katha, Bhamo and Minbu Districts. The number of bears destroyed was 1,333, or nearly 200 less than the previous year, and the number of other animals also fell from 837 to 482, owing to 357 pigs and one alligator being killed last year in the Akyab District as against none this year. The number of snakes shown as having been destroyed declined from 16,398 to 13,136, the Minbu and Ma-ubin Districts showing large decreases and the Tharrawaddy District a striking increase. It is probable, however, that the statistics of snakes killed are not very reliable, no rewards being now payable for their destruction. The number of gun licenses granted for the protection of crops and for the destruction of wild animals decreased slightly from 8,051 to 7,726. Of these 2,092 were held under the Indian Arms Act and the balance under various special laws applicable to hill tracts.

Criminal Justice.

General.

47. The Chief Court, which controls the administration of criminal justice in Lower Burma, consisted at the end of the year of the normal number of five Judges, one appointment of temporary Additional Judge not having been extended

beyond the end of October 1918. The judiciary in Lower Burma further comprised ten Sessions Judges or Additional Sessions Judges, all Europeans; 22 District Magistrates and one temporary Additional District Magistrate, of whom 17 were Europeans; 8 Magistrates of the first class with appellate powers, of whom one was an European; 168 Magistrates of the first class, of whom 13 were Europeans; 71 Magistrates of the second class and 51 Magistrates of the third class, all of whom were Indians or Burmans. Six Magistrates were invested with special powers under section 30 of the Code of Criminal Procedure during the year, and the Magistrates so invested now number 44. Eleven new benches of Honorary Magistrates were constituted during the year, and at the end of 1918 there were 58 benches in all.

In Upper Burma the Judicial Commissioner controls the administration of criminal justice, and the judiciary further consisted of 15 Sessions Judges and Additional Sessions Judges, all Europeans; 19 District Magistrates, all Europeans; 91 Magistrates of the first class, of whom 19 were Europeans; 57 Magistrates of the second class, of whom five were Europeans; 33 Magistrates of the third class, of whom one was an European; and 14 special Magistrates under section 14 of the Code of Criminal Procedure, of whom nine were Europeans. Two Magistrates were invested with special powers under section 30 of the Code of Criminal Procedure during the year, and three further benches of Honorary Magistrates were constituted, raising the total number of benches in Upper Burma to 28.

The main feature of the year was a notable decrease in the number of cases that came before the Courts, the number of offences found to be true being 9,564 less in Lower Burma and 1,937 less in Upper Burma than in 1917. The decrease was not confined to offences against Special and Local Laws, and there was a satisfactory decline of 1,697, or 6·81 per cent., in the number of true offences under the Indian Penal Code in Lower Burma. Though the sustained reduction in crime is most promising, the volume of crime in Burma is still excessive, and the percentage of serious crime per head of population is far above that of other Indian provinces.

The number of Courts inspected during the year was, on the whole, satisfactory in Lower Burma, but the Judicial Commissioner considers there is room for improvement in Upper Burma.

Cases.

48. The total number of offences reported during the year in Lower Burma was 73,804, of which 57,822 were found to be true. Of the offences reported, 34,218 were under the Indian Penal Code as against 36,184 in 1917, and 39,586 under Special and Local Laws as against 47,946. Almost every district shared in the reduction in the volume of reported crime, the most notable decreases being in the Rangoon, Tharrawaddy and Amherst Districts with decreases of 7,298, 658 and 435 cases, respectively. Seven districts, however, report slight increases, the largest being in the Mergui and Pyapôn Districts with increases of 222 and 203 cases, respectively. The percentage of cases returned as true to the total number reported fell from 80·09 to 78·35, the lowest percentage of 66·10 being returned by the Myaungmya District and the highest of 91·48 as usual by Rangoon.

The number of true offences of causing hurt showed a satisfactory decrease of 343 cases to 5,005, though the number of those classed as grievous rose by 4 to 980. True offences against the human body declined very slightly, true murder cases falling from 288 to 283, culpable homicide from 69 to 65, while attempted murders increased from 34 to 39. There was a decrease of offences against property of every kind. Dacoities decreased by 12 to 125, robberies by 15 to 232, cattle thefts by 253 to 1,192, and ordinary thefts by 373 to 6,880. The reduction of dacoity and robbery is generally ascribed to the arming of village headmen with guns and to the breaking up of organized gangs. The Bassein, Tharrawaddy and Insein Districts, with decreases of 80, 53 and 61 cases, respectively, are mainly responsible for the satisfactory decline in the number of cattle thefts. This was ascribed in the Bassein District to excellent police work and in the Insein District to preventive action taken against the principal cattle thieves.

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The District Magistrate of the Tharrawaddy District attributes the remarkable general reduction of crime, amounting to 1,113 cases in two years in that district, to an awakening of public opinion, which has no doubt been assisted by good work on the part of village authorities and by an effective system of police patrols.

True cases under the Excise Act declined from 5,277 to 5,036 and under the Opium Act from 2,069 to 1,653. There were also notable decreases of 309 cases under the Forest Act, 577 cases under the Police Act and 718 cases under the Municipal Act. There was a further remarkable decrease from 8,655 to 4,601 in the number of true cases under the Rangoon Police Act, due to the adoption of the more regular procedure of noting down the name and address of a person committing a public nuisance and then applying for a summons, instead of arresting the offenders on the spot. The number of offences reported under the Gambling Act increased further by 544 to 3,595, of which only 2,585 were returned as true, the percentage of persons convicted being 52. The Hon'ble Judges are of opinion that many of these prosecutions were ill-advised, and that what is required is more stringent action against the promoters of gambling. The number of cases instituted under the Workman's Breach of Contract Act increased from 925 to 1,109, and again a large number of the prosecutions proved abortive. This was particularly noticeable in the Tavoy District, where, out of 92 complaints, an order was made against a respondent in only one case. As the working of this Act presents difficulties to ordinary Magistrates, only specially selected Magistrates, who will be empowered by name under the Act, are in future to be posted to townships in which local conditions necessitate that the Act shall be worked by Township Magistrates. The number of complaints dismissed under section 203 of the Code of Criminal Procedure fell from 3,856 to 3,281, or less than one-third of the number of offences found to be false or mistaken after trial. The Hon'ble Judges remarked that insufficient use was made of this section, and that many Magistrates failed to make a proper preliminary enquiry in complaint cases before issuing process.

In Upper Burma, though the total number of offences reported to the Courts fell from 29,420 to 27,953, there was a slight rise from 12,316 to 12,527 in the number of offences under the Indian Penal Code, while there was a substantial decline from 17,104 to 15,426 in the number of offences against Special and Local Laws. The number of cases found to be true fell from 23,917 to 21,980, of which 8,820 were under the Indian Penal Code and 13,160 under other laws. The number of cases declared false or mistaken declined from 3,936 to 3,905.

The number of true cases affecting human life increased from 138 to 156, including an increase of 22 cases of murder. On the other hand, hurt cases fell by 87 to 2,330, and cases of criminal force and assault by 87 to 387. Offences against property rose somewhat, there being an increase of 8 dacoities, 29 cases of criminal trespass, 26 of other house trespass and 22 of house-breaking and lurking house trespass, while there were seven fewer cases of robbery. In the Minbu District there was an increase of 11 dacoities, of which six were committed by an organised gang from the Thayetmyo District. Cattle theft also increased in the Minbu, Magwe and Myingyan Districts, but there was a gratifying general reduction of crime in the Yamèthin District, due to the good work and co-operation of village headmen. Offences under the Municipal Act fell by 1,755 to 3,550, under the Railways Act by 124 to 549, and under the Forest Act by 110 to 293, while those under the Excise Act increased by 150 to 1,707 and under the Gambling Act by 143 to 1,266. There was a remarkable rise from 71 to 209 in the number of prosecutions under the Canal Act in the Shwebo District, and a rise from *nil* to 54 cases under the Highways Act in the Lower Chindwin District is considered by the Judicial Commissioner as likely to have been due to excessive zeal. The fall in the number of prosecutions under the Municipal Act was mainly due to a decrease of 1,720 cases in Mandalay, and this is said not to have been accompanied by any decreased efficiency of administration. The number of complaints dismissed under section 203 of the Code of Criminal Procedure fell from 881 to 847, and, as in Lower Burma, more careful preliminary enquiry by

Magistrates would, in the opinion of the Judicial Commissioner, have resulted in the dismissal of a much larger number of complaints. CHAP. III.—PROTECTION.

49. In Lower Burma the number of cases brought to trial fell from 80,650 cases involving 134,863 persons to 71,145 cases involving 125,936 persons. Of these, 32,219 cases were under the Indian Penal Code, and 38,926 under Special and Local Laws. The number of persons remaining under trial at the end of the year rose from 6,447 to 7,422, and the Hon'ble Judges considered this increase highly unsatisfactory in view of the reduced volume of work. The percentage of conviction, committal or reference in the courts of Magistrates fell from 66 to 63 per cent., and this decline was also considered as unsatisfactory by the Hon'ble Judges. Stipendiary Magistrates sitting singly disposed of 46,743 cases as against 50,386 in 1917. District Magistrates dealt with 476 as against 547 cases, and Magistrates exercising special powers under section 30 of the Code of Criminal Procedure tried 1,861 cases, of which District Magistrates took up 218 cases, the figures being approximately the same as in 1917. During the year Benches of Honorary Magistrates disposed of 20,900 cases, of which 12,860 were dealt with in Rangoon. Honorary Magistrates thus continued to afford welcome relief to Stipendiary Magistrates and discharged their duties conscientiously. Disposal of cases.

Proceedings with a view to demanding security for keeping the peace were taken in 70 cases involving 156 persons, of whom 24 were discharged and 117 were called on to furnish security, while the cases of 15 persons were pending at the end of the year. In the previous year proceedings were taken in 114 cases involving 147 persons, of whom 126 were called on to furnish security. During the year 1,296 cases involving 1,331 persons were instituted, with a view to demanding security for good behaviour, as against 1,244 cases and 1,249 persons in 1917. Two hundred and thirty-eight persons were discharged and 1,009 were called on to furnish security, the percentage of convictions being 80·07. Care was taken to apply these preventive sections only in suitable cases and the Hon'ble Judges considered that their working has considerably improved. Forty-two persons and 232 persons were required to furnish security under section 17 of the Gambling Act and section 3 of the Opium Law Amendment Act, respectively. The Hon'ble Judges remarked that the former section might have been more extensively employed against the real promoters of gambling. The number of cases committed to Sessions during the year fell from 535 to 439, the number of persons under trial from 965 to 823 and the percentage of convictions from 55·84 to 53·85. The continuous decline in the percentage of convictions coupled with the withdrawal of many cases by Government Prosecutors indicate, in the opinion of the Hon'ble Judges, that Magistrates committed many cases, which should properly have been discharged.

The number of cases committed to the Chief Court rose from 40, involving 45 persons, to 54, involving 66 persons. Fifty-two cases, involving 64 persons, were disposed of. Of these persons, 49 were convicted and 15 discharged or acquitted, the percentage of convictions being 76·56 as against 67·35 in the previous year.

The average duration of all criminal cases rose from 15 to 17 days, the figure for Benches of Honorary Magistrates rising from 3 to 4 days and for Stipendiary Magistrates from 21 to 22 days. The increase was general and was shared by all districts except four. The Hon'ble Judges commented severely on the increase in average duration, which is attributable mainly to lack of method and failure to insist on the observance of section 170 of the Code of Criminal Procedure. Detailed instructions have recently been issued with a view to securing a substantial reduction in the average duration of criminal cases and it is hoped they will bear fruit in the coming year. Average duration in the courts of District Magistrartes remained the same as last year, namely 27 days, but there was a satisfactory reduction in Sessions Courts from 58 to 51 days. The number of witnesses examined fell from 302,205 to 277,527.

In Upper Burma the number of cases brought to trial fell from 29,115, of which 12,051 were under the Indian Penal Code and 17,054 under other laws,

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to 27,626, of which 12,364 were under the Indian Penal Code and 15,262 under other laws. The number of persons under trial during the year decreased slightly from 49,683 to 49,674, and as in Lower Burma, the percentage of convictions declined from 62·15 to 60·37 per cent. There was, however, an increase from 3,579 to 3,611 in the number of persons, whose offences were compounded, and, but for these compositions, the percentage of convictions would have been 68·22. A remarkable feature of the statistics was the great variation in different districts, ranging from 45·10 per cent. in Meiktila to 71·59 per cent. in Mandalay, and it was observed that so low a percentage as 45·10 denotes bad work on the part of the police or of the Magistrates. The number of cases dealt with by Stipendiary Magistrates, sitting singly, excluding District Magistrates, fell from 19,609 to 18,619, by District Magistrates from 289 to 273, and by Benches of Honorary Magistrates from 8,275 to 7,330. The Judicial Commissioner considered that more cases might have been transferred to these benches in some districts. The number of cases before the courts in which proceedings were taken, with a view to demanding security for keeping the peace and for good behaviour, fell from 39 to 19 and from 519 to 507, respectively. In the latter class of case the percentage of successful prosecutions was 76·39, which was slightly lower than in the previous year, but is nevertheless satisfactory, and there was a substantial decline from 178 to 86 in the number of persons sent to jail in default of furnishing security. The number of cases committed to Sessions rose from 1 6, involving 250 persons, to 151, involving 291 persons; the number disposed of rose from 142 cases and 231 persons to 159 cases and 278 persons, but the percentage of convictions again fell from 67·10 to 54·68 per cent.

The average duration of cases rose from 12 to 13 days and the high duration in the courts of the Sagaing, Pakôkku, Myingyan and Mandalay Districts was the subject of adverse comment by the Judicial Commissioner. The total number of witnesses examined fell from 91,322 to 89,047.

Punishments.

50. In Lower Burma the number of death sentences referred to the Chief Court for confirmation fell from 111 to 71, in 42 of which the sentence was confirmed, in 6 reversed, and in 18 altered or reduced. Three persons were sentenced to death by the Chief Court sitting as a Court of Session. The total number of persons sentenced to death thus fell from 62 to 45. The number of persons sentenced to transportation decreased from 376 to 373, that of persons sentenced to rigorous imprisonment from 13,626 to 11,518, to simple imprisonment from 2,394 to 1,095, and there was a remarkable decrease from 3,322 to 1,938 in the number of sentences of imprisonment for 15 days and under. As the latter figure includes 1,477 cases of imprisonment till the rising of the Court, it would appear that the inexpediency of short sentences of imprisonment has been realized by Magistrates, but the Hon'ble Judges found it necessary to emphasise that the rule that short sentences of imprisonment are to be avoided must be applied with discretion and not mechanically. Sentences of whipping increased slightly from 1,773 to 1,811 and explanation was asked for from the two Courts responsible for an increase from 97 to 169 in the number of whippings ordered in the Pegu District. The number of illegal sentences of whipping rose from 18 to 19 and the Hon'ble Judges propose to take stringent action against any Magistrate who offends in this respect in future.

The number of persons sent to jail, for failure to give security for keeping the peace, or for good behaviour, declined slightly from 674 to 669. Though the number of persons so imprisoned is high, the Hon'ble Judges do not consider this was due to any lack of careful scrutiny on the part of Sessions Judges or District Magistrates. The practice of reviewing all cases under the preventive sections at the beginning of the ploughing season was adopted in most districts.

The amount of fines imposed rose slightly from Rs. 5·77 lakhs to Rs. 5·85 lakhs, but the amount realised fell from Rs. 5·27 lakhs to Rs. 5·21 lakhs, which indicates that a tendency to impose fines known to be beyond the means of the accused still exists. The amount paid by way of compensation under section 545 of the Code of Criminal Procedure increased from Rs. 26,607 to Rs. 30,230, but there was an unsatisfactory

decrease from 54 to 31 in the number of persons ordered to pay compensation under section 250. The number of persons released on probation under section 562 of the Code of Criminal Procedure increased slightly from 1,090 to 1,102, but the Hon'ble Judges consider there is still much scope for the extended employment of this section. Of youthful offenders, 17 were discharged after admonition and 40 were delivered to parents and guardians under section 31 of the Reformatory Schools Act, as against 28 and 31, respectively, in the previous year. The sentences of 21 boys were commuted to detention in a Reformatory School, as against 14 in 1917.

In Upper Burma 22 capital sentences, of which 12 were confirmed, came before the Judicial Commissioner, as against 37 sentences, of which 23 were confirmed, in the previous year. The number of persons sentenced to transportation fell from 100 to 92, to rigorous imprisonment from 2,950 to 2,923 and to whipping in lieu of other punishment from 574 to 533; but there was a marked rise from 273 to 365 in the number of persons sentenced to simple imprisonment. The number of persons sentenced to imprisonment for less than 15 days increased slightly from 558 to 603, but the latter figure includes the cases of 406 persons sentenced to imprisonment till the rising of the Court.

The amount of fines imposed rose from Rs. 2·32 lakhs, of which Rs. 2·15 lakhs were realised, to Rs. 2·36 lakhs, of which Rs. 2·16 lakhs were realised. The amount paid by way of compensation under section 545 of the Code of Criminal Procedure fell from Rs. 19,213 to Rs. 17,481.

Appeals.

51. In Lower Burma there was a general decrease from 8,334 to 7,376 in the number of persons who preferred appeals against convictions. Appeals before the Chief Court fell from 1,026 to 848, before Courts of Session from 5,033 to 4,600, and before District Magistrates from 934 to 829. The number of appellants before District Magistrates and Magistrates empowered under section 407 of the Code of Criminal Procedure also fell from 1,404 to 1,185. The Local Government preferred appeals against the acquittals of 7 persons as compared with 81 persons in 1917, but in the case of only one person was the appeal successful. The percentage of sentences confirmed to the total disposed of by all appellate courts fell slightly from 68·87 to 67·27. In many instances, however, the interference of the appellate court amounted only to a modification or alteration of the sentence and not to a reversal of the conviction. There was a substantial reduction from 26 days to 22 in the average duration of appeals in all courts. In the Chief Court the duration fell from 52 to 37 days, and in Sessions Courts from 24 to 22 days, while there was a rise from 9 to 11 days in the Courts of District Magistrates.

In Upper Burma the number of persons who preferred appeals against convictions or orders fell before the Judicial Commissioner from 288 to 273, and before District Magistrates from 955 to 869, but rose before Courts of Session from 1,164 to 1,211. The percentage of confirmation remained practically the same at 60·36, there being a rise from 62·19 to 67·75 in the case of Sessions Courts, and a fall from 56·22 to 48·70 in the Courts of District Magistrates. The average duration of appeals rose from 16 to 18 days, the increase being most marked in the Court of the Judicial Commissioner, where, owing to the indisposition of the Judicial Commissioner and other inevitable causes, it rose from 24 to 48 days.

The Local Government preferred appeals against acquittals in the case of 2 persons and both appeals were successful, as compared with 12 persons and 8 successes in the previous year.

Revisions.

52. In Lower Burma the number of cases dealt with on revision by District Magistrates was 7,095, involving 14,257 persons, as against 6,950, involving 13,320 persons, in 1917; the number of persons regarding whom further enquiry was ordered fell from 204 to 180, but the number of persons, whose cases were referred to the Chief Court, rose from 157 to 383. The number of persons whose cases came before Sessions Judges on revision showed a further satisfactory

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increase from 4,287 to 4,564. In 37 cases further enquiry was ordered and in 202 cases a reference was made to the Chief Court, the corresponding figures for the previous year being 19 and 159, respectively. The Chief Court called for 625 cases, affecting 965 persons, on its own motion, as compared with 653, affecting 1,033 persons, in 1917. The number of cases referred and applications for revision was 587; involving 856 persons, as against 341, involving 574 persons, in the previous year. The orders of Lower Courts were confirmed in the case of 1,040, and reversed in the case of 606 persons. The sentences of 33 were enhanced and of 108 reduced, whilst new trials were ordered in the cases of 33 persons; the figures of the previous year were 1,175, 243, 26, 79 and 16, respectively.

In Upper Burma the number of cases dealt with by District Magistrates on revision fell from 3,549 to 3,031; the number of cases called for by them under the Upper Burma Criminal Justice Regulation was 1,821, and otherwise 1,376, the percentages of confirmation being 91 and 92, respectively. The number of persons whose cases were dealt with on revision by Sessions Courts fell from 1,625 to 1,384, and in the cases of 1,340 the original order was confirmed. The Judicial Commissioner had before him on revision the cases of 2,623 persons; in the cases of 1,950 the sentence or order was confirmed, of 4 the sentence was enhanced, of 101 reduced or otherwise altered, and of 237 reversed; and in the cases of 16 further enquiry was ordered.

Prisons.

Accommodation.

53. Exclusive of hospitals and observation cells, accommodation was provided for 17,016 male and 313 female prisoners, against 17,067 and 320, respectively, in the previous year. The decrease is accounted for by the closing of the Kindat Jail, with accommodation for 71 males and 6 females, and by the revision of the capacity of the Prome Jail, where room was provided for 68 more under-trial prisoners, while the accommodation for convicts was reduced by 49, *viz.* 48 males and 1 female.

The daily average number of prisoners of all classes fell from 16,786 in 1917 to 14,068 in the year of report, the latter figure being the lowest recorded since 1909, when it was 13,681. The decrease is accounted for by 2,041 special releases effected, comprising 1,523 convicts for service as a Labour Corps in Mesopotamia, 380 for employment on the Wolfram Mines in Tavoy, 88 for Forest work, 33 for Mines Survey, 10 for transfer to the Salvation Army Industrial Institution at Kemmendine, a suburb of Rangoon, and 7 for employment on agricultural farms. The accommodation, not only for convicts, but also for undertrials and civil prisoners, was well above requirements.

Prisners.

54. The year opened with a population of 15,962 prisoners of all classes 37,459 were received and 39,605 were discharged, thus leaving 13,816 in confinement at the close of the year—the corresponding figures for 1917 being 17,46 40,655, 42,158 and 15,962. The number of juveniles under sixteen years of ag admitted to jail, rose from 59 to 63, the figures in both cases including 2 girl 246 male juveniles, against 307 in 1917, were sent to the jail to be whipped. the convicts admitted to jail, 31·85 per cent., against 29·27 per cent. in 1917, h been previously convicted, the highest ratios being returned by Henzada (52·4 Prome (44·33), Sandoway (43·61), Myaungmya (43·00) and Bassein (40·83), a the lowest by Pagan (4·32); the figure for the Extramural jail at Maymyo a the juvenile jail at Meiktila was nought. The number of youthful offend under 15 years of age was 29, compared with 17 in the preceding year; of the the number previously convicted was only 1, the same as in the previous yea fourteen of the twenty-nine sent to jail were transferred to the Reformato School at Insein. The number of convicts admitted to jail was 16,733, v 16,244 males and 489 females; of these, 86·72 per cent. were Buddhists a Jains, 5·56 Mahomedans, 5·44 Hindus and Sikhs, 0·40 Christians, while 1·88 p

cent. represented all other classes, the figures for the preceding year being 85·44, 4·79, 5·46, 0·47 and 3·84 per cent., respectively. Of the number admitted (16,733), 82 were sentenced to death, 419 to transportation beyond seas, 234 to simple imprisonment, 15,449 to rigorous imprisonment, 523 to rigorous imprisonment with solitary confinement, and 26 to rigorous imprisonment with whipping; the corresponding figures were 141, 432, 240, 17,131, 596 and 29, respectively, in the previous year. Among the admissions were 5,009 habituals, of whom 4,945 were identified before conviction and classified as such by committing courts, 3 were classified by District Magistrates and 61 by Jail Superintendents, against 5,274, 5,150, 7 and 117, respectively, in the previous year.

Discipline.

55. The total number of offences committed by convicts, including those dealt with by Criminal Courts, shows a further decline from 22,785 to 18,484. The ratio of total punishments to the daily average population fell from 146·50 in 1917 to 141·94 in the year of report. A decrease was again noticeable in the number of offences committed, especially so with regard to those falling under the heads "all other breaches of jail discipline" and "offences relating to work," which declined by 2,095 and 1,382, respectively. It must, however, be borne in mind that the daily average convict population was 2,531 less than in the preceding year. Penal diet, as a form of punishment, was awarded in 1,138 cases, 296 less than in 1917. There were few serious assaults, and only one, as in the three previous years, ended fatally. The number of whippings was 46, compared with 69 in 1917 and 81 in 1916. At thirteen jails the cane was not used. Nine convicts, or two more than in 1917, escaped from custody, three from inside and six from outside the jail. Of the nine, eight were accounted for, seven having been recaptured before the close of the year; the eighth prisoner, while resisting recapture, was shot dead by a Sub-Inspector of Police. Habituals, whose numbers averaged 5,651 as compared with 6,836 in 1917, were responsible for 14 of the 25 offences dealt with by Criminal Courts, and for 22 out of a total of 40 awards of corporal punishment to ordinary prisoners. Out of a grand total of 18,484 punishments inflicted, the habituals were responsible for 11,577, which calculated on the daily average habitual population, works out to 204·87 per cent., compared with 201·58 in 1917. The number of punishments awarded to convict officers was 7,534, a much lower figure than in the preceding three years. Owing to the transfer of many good conduct prisoners to the Mesopotamia Labour Corps and other extramural employments, and the all-round reduction in the population, a general difficulty is experienced in finding suitable prisoners to serve as convict officers, and there is some evidence that those now obtained are, generally speaking, less trustworthy than formerly. The Burman is too easy going to make a good disciplinarian, and the casual prisoner stands in some fear of the habitual.

Financial.

56. The gross expenditure incurred in guarding and maintaining prisoners in the jails of the Province was Rs. 10,91,133, or a decrease of Rs. 72,094 compared with the previous year, but the average cost, per head, rose from Rs. 69-4-9 to Rs. 77-9-0, due chiefly to the fall in population. The nett cash earnings of convicts sentenced to labour rose from Rs. 1,96,922 to Rs. 2,11,633. The quantity of vegetables consumed by the prison population was 1,357 tons, compared with 1,639 tons in 1917. The amount realized by the sale of vegetables over and above the prison requirements was Rs. 13,149, against Rs. 12,741 in the previous year. The value of farm produce, other than vegetables grown, declined from Rs. 36,673 to Rs. 33,145. The value of the convict labour employed by the Government Press and the Public Works Department, for which no credit is given to the Jail Department, was Rs. 76,622, compared with Rs. 1,13,736 in the preceding year.

Vital.

57. From January to July 1918 there were 115 deaths, *viz.* 112 convicts and 3 undertrials. If this state of affairs had continued, the health statistics

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would have been favourable, but, unfortunately, the influenza epidemic made itself manifest in August, and this was mainly responsible for the number of deaths rising to 360, comprising 328 convicts, 30 undertrials and 2 civil prisoners. Influenza was the direct cause of 96 deaths. Further, this disease was the indirect cause of death in prisoners, suffering from other affections, who probably would not have died otherwise, and in several cases acute tuberculosis supervened in a convalescent influenza patient.

Calculated on the daily average prison population (14,068), the ratios, per mille, of admissions to hospital, of daily average sick and of deaths, were 556·16, 23·32 and 25·59, respectively, the corresponding figures for the previous year being 236·51, 15·19 and 19·00. In making this comparison, it should be remembered that 2,041 robust prisoners were transferred to Mesopotamia and elsewhere, leaving the jails with an unduly high proportion of the comparatively unfit. There were no cases of cholera, against 7 in 1917. Only three district jails (Sandoway, Mônywa and Meiktila), against 11 in the preceding year, returned no deaths, the explanation being the prevalence of influenza during the latter half of the year. Of the central jails, Myingyan had the highest death rate, 59·04 per mille; and among the district jails, Pagan, 158·42 per mille. The highest percentages of opium consumers were returned by the jails at Kyaukpyu (40·29), Sandoway (27·07), Mogôk (26·92), Katha (25·57), Bhamo (25·32) and Akyab (25·12). Of the 360 prisoners who died, 58, or 2 less than in the previous year, were addicted to opium. One factor which has greatly helped to reduce sickness and mortality in the Rangoon Central Jail is the remarkable falling off in the number of cases of morphinism and cocainism, potent causes of diarrhœa, dysentery and tubercle.

Miscellaneous.

58. The Juvenile Jail at Meiktila continued to be run on the same lines as in previous years, and, as in 1917, "A" class juveniles, who had not yet reached their nineteenth birthday, were also sent there, after due enquiry had been made into their former life and conduct. The daily average number of convicts rose from 60 to 80. The conduct of the prisoners was good, and their general management was not found difficult. Only 19 punishments were awarded, against 39 in 1917 and 135 in 1916. There was only one serious offence. A convict night watchman made a cowardly and unprovoked assault on a convict warder, hitting the latter on the head with a stone and inflicting a scalp wound. By way of school discipline, the convict night watchman received fifteen lashes, which involved reduction to ordinary prisoner. Twenty-five youths, against 10 in 1917 and 11 in 1916, earned special remission for being free of punishment for a year. The work of the day is divided into physical drill for one hour, literary education two hours and manual industry five hours. The forms of employment were similar to those in previous years, *viz.* carpentry, cane-work, slipper-making, iron work, timber-sawing, paddy grinding and gardening, besides the usual miscellaneous prison services. This year again, no tools were given to the boys on release, as investigation showed that they do not, as a rule, follow the trades they have learnt in jail. The twenty-three acres of land, acquired for the purpose of establishing an experimental seed farm, have been fenced in, and certain crops were grown thereon. In June 1917 sanction was accorded to the deputation of a Jailor to undergo a course of training in the Agricultural farm at Tatkôn, in the Yamèthin District, for a period of one year. A Burman Jailor, with an aptitude for agriculture, has been selected for the purpose and favourable reports of his progress have been received from the authorities under whom the training is being carried out. At the annual examination, the percentage of passes was only 37·97, against 51·19 in 1917, the fall being due to the admission of 9 non-Burmans, all of whom had a poor knowledge, or no knowledge at all, of Burmese. The Deputy Inspector of Schools, who conducted the examination, suggested that, in consideration of his good conduct, a certain youth, who had passed the 4th standard and who is shortly to be released, might eventually be sent to one of the Government elementary training classes at Mandalay, Toungoo or Moulmein. A *Pongyi* held 52 services at the jail, preaching to the boys on Sundays. All were well-behaved and quiet, and it is to be hoped their morals

were benefited. The subject matter of the sermons was, principally, good advice as to how to reform themselves while in Jail, and conduct themselves after they had left it.

As in previous years, the scheme of manual training, for young convicts, was continued at all the 7 central jails and at 3 district jails. The object of the scheme is to give the prisoners a training in such handicrafts as would be useful to them in earning a livelihood after release. The prisoners are carefully chosen, and are asked what kind of industry they would like to follow. As a rule, carpentry, cane work and blacksmithy are the handicrafts usually taught; tailoring is included at Rangoon, Insein, Mandalay, Myingyan and Moulmein; at the last-named jail, book-binding, and at Myaungmya and Mandalay, rug-making and weaving, repectively, are taught, while at Thayetmyo some leather curing and tanning are done, the shoes for its warder staff being made at this jail. The youth trained as a draftsman, and who, on release, received employment in a Government workyard, continued to work in that capacity and gave satisfaction. Eight young convicts released were each given a set of tools pertaining to the trade learnt in jail. It remains to be seen if they will make use of them to earn their living, it being a well known fact that a very large proportion of these released prisoners take to cultivation, their hereditary calling.

The annual examination of the juveniles at the Rangoon Central jail was conducted by the Education Department on the 15th February 1919. Seventeen were presented and all passed, the details being Infant Standard 6, First Standard 7, Second Standard 2, and Third Standard 2. The Deputy Inspector of Schools remarked that the general results were satisfactory. He, however, added that, in geography, the pupils had not much knowledge of the map, and he recommended that the Infant Standard be abolished on the grounds that the pupils are generally 15, or above that age, and that the beginners should start with the work of Standard I.

The lessened population enabled the Jail authorities to bring about a better separation of the habitual from the casual. Thus at certain of the smaller jails (Bhamo, Katha, Shwebo, Magwe, Taungdwingyi and Mergui and Pagan as regards non-lepers), habituals are no longer confined, but, as far as possible, are transferred to the central or to the larger district jails. This also applies to the small jails at Kyaukpyu and Sandoway. In some cases, *e.g.*, Myanaung and Paungdè, habituals are, on commitment, sent direct to the larger jails, instead of to the smaller jails. This has resulted in improved discipline in these small jails, where discipline is more difficult to enforce than in the larger jails. As regards women habituals, these are now generally transferred to the central jail at Thayetmyo, where they are well segregated, greatly to the advantage of the casual female. Juveniles of the casual class are largely sent to Meiktila; the remaining "A" class juveniles and all the "B" class are retained in other jails, where every effort is made to keep them apart. As far as possible, they are transferred to the central and larger district jails, where separation is easier, and the teaching of handicrafts can be properly carried out.

By the grant of remission, 5,460 prisoners, against 5,869 in 1917, cut short their stay in jail, and 3,161, against 3,835, received special remission, *viz.* 1,940 for freedom from punishment for a year and 1,221 for good work. Prisoners are not now allowed to obtain remission for good work unless their conduct is good. Ten prisoners, with sentences ranging from one year's rigorous imprisonment to seven years' transportation, were conditionally released and sent to the Salvation Army Industrial Institution at Kemmendine. One from this batch and three sent in previous years were returned to jail for bad behaviour, leaving 22 on the rolls of the Institution at the close of the year. The work done by the Army is reported to be distinctly valuable, the authorities concerned taking the greatest interest in their charges. The Government contribution to the Institution during 1918-19 was Rs. 5,000. The various ticket-of-leave schemes have been found to work satisfactorily, and they have been a means of preventing congestion, so far as the convict element is concerned.

The number of subsidiary jails was increased from 17 to 20.

Civil Justice.

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59. The administration of Civil Justice in Lower Burma, is under the control of the Chief Court sitting in Rangoon, and in Upper Burma of the Court of the Judicial Commissioner of Upper Burma sitting in Mandalay. The congestion in the former having been relieved, the appointment of a temporary Additional Judge was not continued after the 31st October 1918, and after that date the Court consisted of the normal number of five Judges. The Divisional and Sessions Judge, Tharrawaddy Division, acted as Additional Sessions Judge, Bassein Division, throughout the year. The pressure of criminal work in the Tenasserim Division necessitated the appointment of an Additional Sessions for this division for three short periods during the year, and Additional Divisional Judges were also appointed in the Hanthawaddy and Myaungmya Divisions for short periods. To clear off arrears, that had accumulated in the District Court of Hanthawaddy and Insein, a temporary Additional Judge was appointed for a period of three months from the 9th December 1918, and for similar reasons the Subdivisional Judge of Ma-ubin was appointed Additional Judge of the District Court of Ma-ubin. The appointment of Additional District Judge, Tavoy, was continued throughout the year The new Zigôn Township of the Tharrawaddy District was combined with the Gyobingauk Township and placed under the jurisdiction of one Judge, sitting at Gyobingauk Other territorial changes that took place during the year did not affect the jurisdictions of Civil Courts The Small Cause Court jurisdictions of the Township Courts of Kyaukpyu and Sandoway were extended to the whole of their respective townships The Township Courts of Ramree, Cheduba, Myèbôn and An in the Kyaukpyu District and of Kyôpyaw and Ngathainggyaung in the Bassein District were invested with Small Cause Court jurisdiction up to the value of Rs. 50, to be exercised in cases arising within the limits of the respective townships. The Township Court of Kyangin was also invested with similar jurisdiction, to be exercised within the limits of the Kyangin Municipality. There was no change in the number or jurisdiction of Civil Courts in Upper Burma.

Progress has been made with the schemes, which are now before the Local Government, for the formation of a High Court for the whole of Burma, the reorganization of the superior Judicial service in Upper and Lower Burma, and the revision of the Provincial and Subordinate Judicial Services in both Upper and Lower Burma.

Suit

60. Perhaps the most conspicuous feature in the administration of Civil Justice has been the decline in the number of suits instituted, which, following on a marked decrease in the previous year, makes the number of suits instituted during 1918 the lowest since 1899, while the number of suits before the courts was the lowest since 1901. The causes of the decline are the same as in the previous year, but the prolongation of the conditions has accentuated their effects. The depression in trade and the low price of paddy, due to war conditions, re-acted on the business of the courts by making speculative litigations difficult, if not impossible, and by limiting litigation mainly to safe transactions. Contraction of credit and a realisation by creditors that the times were unpropitious for the recovery of debts were other important factors in the decline of litigation.

In Lower Burma the total number of suits instituted decreased by 5,154, from 43,406 to 38,252, a decrease which was shared by all classes of Courts, except Subdivisional Courts and the Chief Court, which both show slight increases from 1,950 to 2,025 and from 369 to 400, respectively. The figures for both District and Township Courts both show large decreases, namely from 943 to 730 and from 26,044 to 22,120, respectively. There was also a remarkable decrease of 1,275 in the Small Cause Court, Rangoon from 8,525 to 7,250, and it is probable that in this year this Court first felt the effects of the disorganization of the money market and the shrinking of credit. With the insignificant exception of Small Cause Court cases outside Rangoon, which increased slightly, owing to the extension of Small Cause Court jurisdiction to Additional Township Courts, all types of suit decreased. Suits for money and movable property

declined by 4,819 from 39,022 to 34,203, those for immovable property from 1,309 to 1,203, mortgage suits from 1,720 to 1,560, suits for specific relief from 674 to 632 and matrimonial suits from 424 to 407. The largest decreases took place in Akyab, Henzada, Bassein, Amherst, Toungoo and Ma-ubin. In the Hill District of Arakan the imposition of court-fees under the amended Civil Justice Regulation furnished a much needed check on the litigiousness of the Chittagonian trading community, which had hitherto revelled in free litigation to the undoubted harassment of their principal customers, the unsophisticated hillmen.

The value of suits filed in Lower Burma declined by Rs. 46 lakhs from Rs. 2,00 lakhs to Rs. 1,54 lakhs. The decrease is due to the smaller number of suits instituted and is shared by all Courts except Subdivisional Courts. A decline of Rs. 23 lakhs in the Chief Court is explained by the fact that a single suit involving Rs. 31½ lakhs was decided in 1917. The decrease in the case of the Akyab District Court is due to the cessation of the forced liquidation proceeding at the instance of the Bank of Bengal. Only six districts returned an increased value and even in their cases the increase was mainly due to the fortuitous circumstance of individual heavy suits being filed

The number of suits disposed of fell from 44 821 to 38,507. Of these 23·65 per cent. were contested, as against 23·39 in 1917, the plaintiffs' percentage of success being 64·98 as compared with 69·80. The percentage of suits decreed on confession declined from 23·48 to 21·84, while that of suits decreed *ex parte* remained the same (26·42). The number of suits pending at the end of the year increased from 5,016 to 5,332, of which 2,313 had been pending over three months as against 2,178 at the end of last year. In view of the decreased amount of work performed, the increase in the number of pending cases was considered unsatisfactory by the Hon'ble Judges, though allowance must be made for the influenza epidemic and the large amount of special war work which executive officers, who are also Civil Judges, were called on to perform.

The same remarks apply to an increase in the average duration of contested cases from 81 to 87 days. The average duration of uncontested cases remained stationary at 49 days. The Hon'ble Judges considered that closer supervision by Divisional and District Judges is required, and are themselves calling on Judges, in whose Courts excessive delay occurred, for an explanation. The Courts in the Amherst, Tavoy and Pyapôn Districts were mainly responsible for the rise in duration, while there was a welcome improvement in those of the Insein, Prome and Sandoway Districts.

In Upper Burma also the number of suits instituted fell from 18,085 to 16,208, all districts sharing in the decrease except Katha, Lower Chindwin and the Chin Hills, which showed slight increases. The decrease was heavie t in the districts of the Magwe Division and in the Yan èthin District, and is generally ascribed to business depression and to the prevalence of influenza. The number of suits for money or movable property declined by 2,166 from 16 157 to 13,991, but against this must be set small increases in other classes of case. Suits for immovable property increased from 646 to 710, mortgage suits from 590 to 753, and there were 28 more suits for specific relief and 12 more relating to matrimony than in 1917. The rise in the number of suits for immovable property is more apparent than real, as suits for possession of State land are now tried by Civil instead of Revenue Courts, and there has probably been a decline, if the suits formerly tried in the latter class of Court are taken into consideration.

The total value of suits filed fell by Rs. 6 lakhs from Rs. 32 lakhs to Rs. 26 lakhs. The Magwe, Mandalay and the Ruby Mines District, with falls of Rs. 3·38 lakhs, Rs. 1·95 lakhs and Rs. 1·70 lakhs, respectively, were chiefly responsible for the decline. In the Magwe District the value of suits is bound to vary considerably from year to year, according to the number and value of suits connected with oil-wells at Yenangyaung, and in the other two districts this year's figures merely represent a return to normal conditions. There were minor increases of value in the Kyauksè, Myingyan, Minbu and Shwebo Districts. The number of suits disposed of fell from 18,147 to 16,197; of these 21·74 per cent. were contested as compared with 22·25 per cent. in 1917, and the percentage of success for plaintiffs was 66·96 as against 67·49 per cent. in the previous year. The number of suits decreed on

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confession was 4,270 and of those decreed *ex-parte* 2,212 compared with 5,309 and 2,537, respectively, last year. The number of suits pending at the end of the year rose slightly from 2,256 to 2,393, and the Judicial Commissioner remarked that this increase cannot be regarded as satisfactory, in view of the decline in the number of suits disposed of.

There was a satisfactory decrease in the average duration of contested cases from 84 to 74 days, but there was an increase in the duration of uncontested cases from 46 to 49 days. As in Lower Burma, extra duties connected with the war and the influenza epidemic tended to retard the disposal of civil judicial work.

The number of miscellaneous cases for disposal in the Courts of Lower Burma was 6,223 as against 6,687 in 1917. The average duration of 55 days was the same as last year, while the number pending at the end of the year fell slightly from 786 to 763. In Upper Burma there were 1,780 miscellanous cases, of which 1,502 were disposed of as against 1,789 in the previous year. The average duration fell from 74 to 71 days.

In Lower Burma the number of applications for execution before the Courts was 33,69: as against 37,177 in the previous year. The number pending at the end of the year was 4,621 as against 5,059. The amount realized increased slightly from Rs. 22·83 lakhs to Rs. 22·69 lakhs. A satisfactory feature was the continued decline in the number of judgment debtors imprisoned from 629 to 480 and in the number of judgment debtors arrested, but released without imprisonment, from 1,766 to 1,562. Sales of movable property fell from 1,008 to 740 and of immovable property from 1,740 to 1,702. The percentage of applications wholly or partially successful of the total disposed of, otherwise than by transfer, decreased slightly from 43·02 to 42·41.

In Upper Burma applications for execution of decrees declined from 12,744 to 11,667. The number pending at the end of the year was 2,144 as compared with 2,370 in the previous year. Realizations amounted to Rs. 5·02 lakhs as against Rs. 4·97 lakhs. Imprisonments for failure to satisfy decrees numbered 70, or 10 fewer than in 1917, and the number of persons arrested, but released without imprisonment, also fell from 682 to 632. The percentage of applications wholly or partially successful of the total disposed of, otherwise than by transfer, increased from 47·41 to 48·75.

Five hundred and twenty-eight aplications under the Provincial Insolvency Act were made in Lower Burma, of which 280 came from debtors who had been arrested, 237 from debtors who had not been arrested, and 11 from creditors. The corresponding figures of the previous year were 621, 371, 235 and 15, respectively. The number disposed of fell from 635 to 536, 27 were withdrawn, 162 were dismissed, and adjudication orders were made in 347 cases, a receiver being appointed in 95 cases. In Upper Burma 201 applications were disposed of, leaving 38 pending at the close of the year, as compared with 243 and 55, respectively, in 1917. Adjudication orders were made in 132 cases, a receiver being appointed in 28 cases. Twelve applications were withdrawn and 57 were dismissed.

Appeals.

61. Consequent on the reduction in original litigation, the number of appeals preferred in District Courts of Lower Burma against decrees of Township Courts fell from 1,708 to 1,384, but there was a rise in the average duration from 53 to 57 days. The percentage of confirmation was 61·81, of modifications 7·61, of reversals 26·90 and of remands 3·67. The corresponding figures in 1917 were 60·08, 10·02, 27·25 and 2·65, respectively. The number of appeals disposed of fell from 1,736 to 1,472, and the number pending at the end of year from 247 to 159. It was again noticeable that insufficient use had been made by some Courts of the provisions of Order 41, Rule 11, regarding summary dismissal of appeals.

The number of appeals preferred in Divisional Courts fell from 365 to 349, the number disposed of from 415 to 321 and the average duration from 113 to 101 days. The percentage of confirmations was 67·60 as against 64·82, of modifications 10·28 as against 11·08, of reversals 20·87 as against 21·45 and of remands 1·25 as against 2·65.

The number of miscellaneous appeals preferred in District Courts declined from 150 to 144 and in Divisional Courts from 110 to 83. In District Courts

the number pending at the end of the year declined from 14 to 12 and in Divisional Courts from 20 to 13.

In Upper Burma the number of appeals in District Courts was 1,172 as against 1,215 last year, but the average duration increased from 86 to 88 days, and it is thought some want of method is indicated. There was, however, a satisfactory increase in the number of appeals summarily dismissed from 92 to 154. The percentage of confirmation was 63·46, of modification 6·71, of reversal 25·80 and of remand 4·04. The corresponding figures in the previous year were 60·11, 9·72, 25·92 and 4·24, respectively. The number of appeals which came before Divisional Courts was 11 as against 20 in the previous year. There was a remarkable rise from 131 to 340 days in the average duration of these appeals and explanations have been asked for. The number of miscellaneous appeals before District and Divisional Courts rose from 155 to 167, of which 139 were disposed of as against 123.

The appellate work of the Chief Court of Lower Burma and of the Court of the Judicial Commissioner, Upper Burma, is described in the next two paragraphs which deal with these Courts.

The Chief Court of Lower Burma.

62. During the year of report Judges of the Chief Court sitting singly disposed of 417 original suits, 318 applications for execution of decrees and 220 miscellaneous cases. On the appellate side, single Judges dealt with 12 regular first appeals, 308 second appeals, 192 revisions and 18 miscellaneous applications. Benches of two Judges disposed of 154 regular and 56 miscellaneous first appeals, 2 revisions and 19 miscellaneous applications. A full Bench of three Judges dealt with 3 civil references under section 17 of the Indian Divorce Act and a full Bench of four Judges with 2 civil references under the Lower Burma Courts Act.

The number of suits instituted during the year was 400 as against 369 in the previous year, while their aggregate value fell from Rs. 69·63 lakhs to Rs. 46·65 lakhs. Although only one Judge sat on the Original Side of the Court during eight months of the year, the number of suits disposed of increased from 354 to 417. The average duration of contested cases fell from 417 to 258 days, while that of uncontested cases rose slightly from 193 to 219 days. Of the suits disposed of, 35·97 per cent. were contested as compared with 40·08 per cent. in 1917. The number of sales of immovable property fell from 41 to 22, but the amount realised rose from Rs. 6·87 lakhs to Rs. 7·41 lakhs. The number of cases disposed of under the Presidency Towns Insolvency Act was 196 as against 204 in 1917; the number remaining pending at the end of the year fell from 140 to 120. Five persons were adjudicated insolvents on the application of creditors and 197 persons on their own application. Debtors were granted their discharge in 120 cases and in 71 cases the application for discharge was dismissed or the adjudication order was annulled. The miscellaneous business consisted of 22 applications for probate, 96 applications for letters-of-administration, 25 cases under the Guardian and Wards Act and 41 cases under other Acts in addition to 36 applications under the Code of Civil Procedure.

The number of regular appeals instituted declined from 419 to 334, while the number disposed of increased from 354 to 474, with the result that the number pending at the end of the year fell from 360 to 220. Of the appeals instituted, 100 were against original decrees and 234 against appellate decrees as compared with 127 and 292 in 1917. The average duration of first appeals declined from 384 to 340 days and that of second appeals also declined from 239 to 222 days. The improvement in the disposal of appellate work is due to the fact that four Judges were available for the hearing of appeals throughout the year. There were 79 miscellaneous appeals, of which 56 were disposed of, with an average duration of 191 days, and 23 remained pending at the close of the year. The decrees of lower courts and of the original side of the Chief Court were confirmed in 67·30, reversed in 24·26, modified in 6·96 and remanded in 1·48 per cent. of appeals disposed of, figures which do not differ materially from those of 1917. Of the total number of appeals dealt with, 15·75 per cent., as against 16·70 per cent., were summarily dismissed. The number of revisions disposed

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of fell from 205 to 194, but the percentage of confirmation rose from 77·60 to 81·96. There were 14 appeals before the Privy Council, of which two were decided, leaving 12 pending.

The Court of the Judicial Commissioner, Upper Burma.

63. Three hundred and sixty-seven appeals, or 49 less than in 1917, were preferred to the Court of the Judicial Commissioner. Of these, appeals from original decrees numbered 88 and from appellate decrees 279. The number of appeals disposed of fell from 446 to 384 and the number pending at the end of the year also fell from 213 to 196. The Additional Judge dealt with 40 per cent. as against 45 per cent of the appellate work, the decrease being due to his temporary absence on privilege leave and on deputation. The average duration in first appeals was 276 and in second appeals 157 as compared with 245 and 241 days in 1917. The percentage of confirmation dropped slightly from 66·37 to 62·50 per cent. The number of applications in revision fell from 432 to 348, the number disposed of from 331 to 252 and the number pending at the close of the year from 101 to 96. The Court also disposed of 85 miscellaneous appeals and applications, or 22 more than in 1917.

General.

64. The number of inspections of Courts was, on the whole, satisfactory in Lower Burma, but was inadequate in Upper Burma. In Lower Burma, 1 advocate of the Chief Court, 3 first grade pleaders, 8 second grade pleaders and 10 third grade pleaders were admitted, and the certificates of 20 first grade, 116 second grade and 407 third grade pleaders were renewed during the year. In Upper Burma the number of advocates' cases fell from 112 to 110, of which 43 were concerned with admission or promotion, 29 with renewals of licenses, 2 with complaints of misconduct, and the balance with reports of death or transfer. The Court-house accommodation in both Upper and Lower Burma stands in urgent need of improvement, but the enormous building programme with which the Province is faced militates against a very early settlement of this question. Cases of particular urgency will, as far as possible, continue to be disposed of as they arise.

Registration.

General.

65. No changes were made during the year in the Law, Rules and Directions relating to registration Two new sub-registrars' offices were opened during the year at Zigôn in the Tharrawaddy District and at Labutta in the Myaungmya District.

Deeds registered.

66. The total number of compulsory registrations affecting immovable property declined further from 60,514 to 57,828, and is the lowest recorded since 1912. On the other hand, the aggregate value increased by 14½ per cent. from Rs. 7,24,58,472 to Rs. 8,29,81,710, a figure which was only exceeded in 1916. Instruments of sale or exchange of immovable property of the value of Rs. 100 and upwards also declined in number from 25,880 to 25,115 and increased in value from Rs. 3,60 lakhs to Rs. 4,73 lakhs. Very considerable increases in value were recorded in Rangoon Town (51 lakhs), Myaungmya (34½ lakhs) and Pegu (33 lakhs) and a very considerable decrease in Tavoy (26¾ lakhs). In Rangoon Town the increase, both in number and in value, is ascribed to purchases of immovable property by dealers in piece-goods and hardware, who had made large war profits. Outside Rangoon the general increase is ascribed to the conversion of mortgages into sales and the pressure of money-lenders on the owners of better class land, owing to the low course of paddy prices. The decrease in Tavoy is due to the more stable condition of the mining industry, consequent upon the advent of large firms, which have sunk considerable capital in the industry and will not part with their interests lightly.

Instruments of mortgage declined in number from 31,016 to 29,131, but, for the first time since 1914, there was a slight increase in value from Rs. 2,72 lakhs to Rs. 2,75 lakhs. The influence of the war, as evidenced by scarcity of money, the failure of the paddy market and the reluctance of money-lenders to make

loans on the security of agricultural land, save at very high rates of interest, sufficiently accounts for the decrease in the number of mortgages. In the Kyauksè District an increase of 46 per cent. in the number of mortgages is attributable to the activity of Co-operative Credit Societies, whose transactions represent about two-thirds of the total.

Optional registrations of instruments concerning immovable property fell in number from 194 to 156, but there was a marked increase in value from Rs. 2·76 lakhs to Rs. 4·38 lakhs. Registrations of instruments concerning movable property increased in number from 7,844 to 7,964 and in value from Rs. 80·92 lakhs to Rs. 85·47 lakhs.

Income and expenditure.

67. Income and expenditure remained practically stationary, the former increasing by Rs. 1,694 to Rs. 2,08,899 and the latter by Rs. 319 to Rs. 1,13,882. Expenditure was 54·5 per cent. of income as compared with 54·8 per cent. in 1917 and 47·2 per cent. in 1916, and in six districts expenditure exceeded income. Special sub-registrars were appointed during the year at Zigôn, Tharrawaddy District, and at Twante, Hanthawaddy District, the number of such officers being thus raised to 43.

Joint Stock Companies.

68. One hundred and twenty-six joint stock companies, with an aggregate authorised capital of Rs. 11,58 lakhs, were working at the end of the year, showing an increase of 13 companies and Rs. 1,39 lakhs of capital. Fifteen new joint stock companies limited by shares were registered during the year, with a total authorised capital of Rs. 1,45 lakhs, as against 9 companies with a total authorised capital of Rs. 32 lakhs last year. The heavy increase of capital over the previous year's figures is due to two enemy properties being taken over by British companies, with a capital of Rs. 45 lakhs each, and two others with a capital of Rs. 15 lakhs each. The number of companies, which increased their capital, rose from 12 to 19, the extent of the increase being approximately Rs. 97 lakhs. One company reduced its paid-up capital during the year and two companies with a paid-up capital of Rs. 10½ lakhs wound up their business. Three companies established outside British India filed their papers under section 277 of the Act as compared with four such companies in 1917, while four enemy companies were removed from the register. The total number of companies now registered is 137. The fees realised during the year amounted to Rs. 7,159 as against Rs. 3,809 last year. Four societies were registered under the Societies Registration Act of 1860 during the year, bringing the total up to 47. The cost of the separate establishment for dealing with joint stock companies was Rs. 864 as in the previous year.

Of the new joint stock companies registered during the year, 2 were for mining, 2 for rice milling, 2 for planting, 2 for printing and the balance for miscellaneous trading purposes.

Local Boards Administration.

69. There are at present no local boards in Burma, but during the year some progress was made with plans for their institution, as they form an integral part of the proposed scheme of constitutional reform for the Province. At present the District Funds in Upper Burma and the District Cess Funds in Lower Burma are administered by the Deputy Commissioners of the districts to which they belong. Some account of their receipts and expenditure is given in Chapter V of this Report.

Municipal Administration.

Rangoon Municipality.

70. A general election of members of the Rangoon Municipal Committee was held in November 1918, but contests were confined to the seven seats tenable by representatives of the Hindu and European and allied communities

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There were no contests for the nine seats allotted to the Mahomedan, Chinese and Burmese communities, and in the case of the last mentioned community the Local Government had to exercise its power of nomination in respect of one seat, as no candidate was forthcoming. The ordinary income of the municipality rose from Rs. 46·31 lakhs to Rs. 48·92 lakhs, the increase being mainly due to enhanced receipts from rates and taxes, pawnshop license fees and interest on sinking fund investments. The incidence of taxation and income per head of population rose from Rs. 12-0-3 to Rs. 12-2-1 and from Rs. 16-4-1 to Rs. 17-2-4, respectively. No new tax was proposed or sanctioned during the year, and the question of imposing a terminal tax on certain classes of goods in order to raise revenue for the Municipality was still before the Local Government. During the year 775 new properties, including two factories, were assessed to taxation, and the assessment of 140 properties including 7 factories were revised. The number of properties separately assessed to taxation rose from 16,409 to 16,794. The total monthly assessed value of all buildings and lands within the Municipality, other than Government, Port Trust and Railway properties, rose from Rs. 11·77 lakhs to Rs. 12·06 lakhs and the gross demand for municipal taxes thereon from Rs. 29·35 lakhs to Rs. 29·81 lakhs. The contribution received from Government on account of Municipal taxes on Government lands and buildings was Rs. 2·24 lakhs, as compared with Rs. 2·21 lakhs in the previous year. The present agreement, whereby Government pays a yearly contribution in lieu of municipal taxes calculated at the rate of 7½ per cent. on the total sum derived annually as taxes from private lands and buildings in Rangoon, will expire on the 31st March 1920 and the future basis of taxation is under consideration. The amount received from the Port Trust, calculated on the basis of 4 per cent. of its ordinary revenue, declined from Rs. 1·58 lakhs to Rs. 1·39 lakhs, but the assessed demand on Railway property increased slightly from Rs. 1·30 lakhs to Rs. 1·31 lakhs. A controversy between the Municipality and the Railway Company, as to the liability of three plots of land to be assessed to scavenging tax, was finally settled during the year by the Chief Court, the decision being in favour of the Municipality in respect of one plot, which was used as a store yard, and against it as regards the remaining two, which were unused. The revenue derived from municipal rates and taxes increased from Rs. 34·23 lakhs to Rs. 34·56 lakhs, partly on account of the expansion of the town and partly on account of revision of assessments. Under other heads of income there were large increases of Rs. 80,095, due to the extension of night stalls and to a revision of rents for encroachment on municipal land, of Rs. 55,772 on account of increased competition for pawnshop licenses and of Rs. 40,500 due to the growth of the sinking fund and to investments at higher rates of interest. The ordinary expenditure rose from Rs. 36·81 lakhs to Rs. 38·51 lakhs, more money being spent on water supply, drainage works and vernacular education, and less on roads and conservancy. The municipal fund had at the end of the year a credit balance of Rs. 2·12 lakhs, in spite of advances aggregating Rs. 24 lakhs having been made from revenue to meet the cost of various capital works pending the raising of loans.

The fire brigade attended 53 fires during the year and rendered effective assistance in the extinction of 23 fires. The total loss was unusually heavy and aggregated Rs. 26 lakhs as compared with a normal average of a little over Rs. 5 lakhs. The principal losses, however, occurred either on the river itself or on the river bank opposite the town or on the outskirts of the town, all of which places are out of reach of assistance from the brigade as at present equipped. The burning of three rice mills was responsible for the greater part of the heavy loss incurred. The provision of additional equipment, including a motor fire float, for the better protection of property on the river and its banks, is engaging the attention of the Municipal Committee. The cost of upkeep of the brigade fell from Rs. 74,512 to Rs. 71,731. The new agreement for the lighting of the town by the Rangoon Electric Tramway and Supply Company came into effect on the 1st January 1919 and some progress was made with the replacement of carbon by metallic filament lamps. Additional electric lamps were installed in certain areas and the number of oil lamps maintained by the municipality was increased by 61 to

860. The cost of electric lighting during the year was Rs. 1,78,684 and of oil lighting Rs. 28,894 as compared with Rs. 1,74,842 and Rs. 28,571, respectively, in the previous year.

There was no interruption of the main water supply of the town from the Hlawga reservoir. The average quantity supplied per day to an estimated population of 200,000 rose from twelve to fourteen million gallons, giving evidence of very considerable wastage. In addition to the supply from Hlawga, over 25 million gallons from the tube well at Ahlone were distributed through stand pipes in the streets. During March and April water was supplied free of charge by means of two water boats to those inhabitants of the Dalla quarter who wished to take it; the quantity so taken was about 2,500 gallons per day, and the cost to the municipality was Rs. 15-12-0 per thousand gallons. The pumping engines at Yegu worked satisfactorily throughout the year. To economise fuel the pumps were stopped for nine hours daily during the rains, the supply during these hours being by gravitation only, but, owing to the possibility of insufficient pressure in the event of fire, it was decided not to continue this practice during the dry weather. The water-tax fund closed with a debit balance of Rs. 37·11 lakhs, but during the year of report ordinary receipts were Rs. 1·08 lakhs in excess of ordinary expenditure.

The work of altering the connections and manholes in the sewers laid in certain back drainage spaces, preparatory to paving them, was continued. War conditions rendered impossible any extension of the sewerage system. Outside the sewered area the practice of removing bath water by municipal agency was discontinued and notice was served on householders to make their own arrangements for its disposal. Except for a burst in one 9-inch sewer, which had to be renewed for the greater part of its length, the sewage mains gave no trouble and the ejectors worked efficiently.

A new Municipal market was opened in Yegyaw in a cheap structure of a temporary nature, which was fully occupied. Attention continued to be paid to the weights and scales used in the markets and several persons were prosecuted for using false weights. The total receipts from Municipal markets increased slightly to Rs. 2·76 lakhs.

Altogether 102,237 animals, excluding pigs, were slaughtered during the year, and the revenue of Rs. 1·40 lakhs derived from slaughtering and lairage fees was the highest on record. The total number of pigs slaughtered was 22,708 and the revenue obtained from this source was Rs. 27,621, both figures being much the same as in the previous year. Action was taken to control the illicit slaughter and sale of goats with good results. Though the number of animals that passed through the cattle market fell from 93,704 to 74,980, the revenue from the market rose slightly from Rs. 13,192 to Rs. 13,333. The reclamation of an area of 2 acres immediately adjoining the market was completed. The number of animals impounded rose from 9,171 to 10,427. Except for one or two isolated cases, the Municipality was free from glanders, but there were 12 cases of anthrax and 629 cases of rinderpest during the year.

No new roads were constructed, and the ordinary maintenance and repair programme had to be considerably curtailed, owing to a shortage of railway waggons available for the transport of stone metal, and also owing to a shortage of labour caused by the influenza epidemic. The programme was further interfered with by the operations of the Munitions Board, whose heavy timber traffic over certain roads in East Rangoon caused such damage as to necessitate the diversion of material originally intended for the repair of other roads. The creation of a separate appointment of Roads Engineer was sanctioned during the year. The expenditure on roads rose from Rs. 2·92 lakhs to Rs. 3·07 lakhs, while that on street watering fell from Rs. 66,240 to Rs. 63,400.

There was considerably less activity in the Building Department than in the previous year, and the number of applications for erection or re-erection fell from 1,895 to 984. The number of prosecutions for infringement of the building bye-laws also fell from 2,118 to 1,117. The new buildings erected in the course of the year included 70 masonry buildings, 202 plank buildings and 158 mat buildings.

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The public parks and gardens were kept in good order and the cutting and trimming of roadside and other trees was continued.

Excluding the loans aggregating Rs. 60·50 lakhs raised by the Municipal Committee on behalf of the Rangoon Town Lands Reclamation Fund, the indebtedness of the Committee at the end of the year of report was Rs. 130·58 lakhs as compared with Rs. 131·16 lakhs at the end of the previous year. Large investments of sinking funds were made in war loans and the year closed with a credit balance of Rs. 2·12 lakhs, notwithstanding that a sum of Rs. 4·85 lakhs was advanced from revenue to meet capital expenditure incurred during the year. Owing to the depreciation of Government securities, there was a deficit of Rs. 5·31 lakhs in the sinking funds formed for the repayment of the various Municipal and Reclamation Fund Loans. It is anticipated, however, that the value of Government paper will to some extent improve and the higher rate of interest earned by present and future investments will also help to meet the deficiency. In view of the uncertainty as to the future course of prices, the Municipal Committee decided to make full provision for loans due for repayment between 1920 and 1923, and to defer consideration of the deficiencies in the sinking funds of loans due for repayment in 1927 and later years, till more experience of *post bellum* conditions has been obtained. The Provident and Fire Insurance Funds were in a sound financial condition and at the end of the year held investments in Government, Municipal and Port Trust paper of Rs. 7·38 lakhs and Rs. 6·40 lakhs, respectively.

Amendments were made in the byelaws and rules regulating elections, slaughter-houses, the keeping of wild and dangerous animals, the grant of leave to officers after attaining the age of 55 and the occupation of registered buildings. New bye-laws came into force dealing with the management of Christian cemeteries, the protection from injury of the pavement in back drainage spaces and the refund of license fees paid by owners of motor omnibuses, hack-carts and other vehicles plying for hire. Revised bye-laws for the management of the Municipal Provident Fund were sanctioned by the Local Government, but, owing to lack of funds, it was not found possible to enforce the bye-laws regulating dairies and the sale of milk.

The number of taxicabs increased by 2 to 58 and the receipts from this source amounted to Rs. 3,500. The number of licenses issued to bullock carts increased from 1,593 to 1,686 and to hand carts from 1,285 to 1,343 and the license fees increased from Rs. 50,205 to Rs. 52,265.

The population of Rangoon was 293,316 in 1911 and was estimated at 323,157 in the middle of 1918. As compared with 1917 the number of births fell from 6,372 to 6,220 and the birth rate (per 1,000 of estimated population) from 20·04 to 19·31. The number of deaths, on the other hand, increased very largely from 9,885 to 15,411 and the death rate (per 1,000 of the population at the time of the census) from 33·70 to 52·54. The number of infants who died before attaining the age of one year was 2,048, giving an infantile mortality rate of 329·26 as compared with 1,827 deaths and a mortality rate of 286·72 in the previous year. The rate was highest amongst Hindus and Mahomedans, and lowest amongst Europeans and Anglo-Indians. The number of cases of plague increased from 1,378 to 1,776 and the number of deaths from 1,288 to 1,668. As in the previous year the age mainly affected was between 20 and 30 and the Hindus suffered most. The number of persons inoculated against plague fell from 5,166 to 4,486, of whom 4,354 were inoculated by the jail authorities. The plague staff destroyed 330,924 rats as against 420,052 in the previous year. There were 99 cases of cholera and 74 deaths as compared with 76 cases and 49 deaths in 1917. It is not possible to give the number of persons attacked by influenza, but between July and December 1918 there were 3,699 deaths from this cause and there can be little doubt that influenza was also responsible for a considerable number of the 1,162 deaths attributed to pneumonia and other respiratory diseases during the same period. The measures taken to cope with the outbreak are described in Chapter VI of this Report and it is only necessary to mention here that the Municipality, besides equipping two temporary hospitals, also made a free distribution of medicine to 4,947 persons from various depôts. The poorer classes were mainly affected and the disease was in many

cases complicated by a virulent type of pneumonia. The number of cases of small-pox rose from 171 to 297, and the number of deaths from 18 to 95. The number of deaths from enteric fever fell from 39 to 23, but deaths due to malaria increased from 271 to 392, to dysentery and diarrhœa from 976 to 1,067; to tubercle from 709 to 780; and to beri-beri from 84 to 119. There were five deaths from cerebro-spinal meningitis during the year. The number of vaccinations performed increased very considerably from 29,494 to 53,050, including 6,055 performed on passengers arriving by sea. Of the total number of vaccinations performed, 14,109 were primary vaccinations, of which 99·96 per cent. were successful, and 38,941 were re-vaccinations, of which 66·65 per cent. were successful.

Minor Municipalities.

71. The number of municipalities was 44 as in the previous year. Nearly all have the power to elect their own presidents. The boundaries of the Thônzè Municipality were revised so as to exclude an area of ·05 square mile.

While the constitution of Municipal Committees remained practically the same as in the previous year, the office of the Vice-President in several municipalities was held by non-official members, and there were non-official Presidents at Kyaukpyu, Syriam and Insein, the committee of the first and the last named municipality now consisting of purely non-official members. The numbers of official and non-official members were 192 and 371 as compared with 199 and 363, respectively, in the previous year. Out of 869 meetings held during the year, six proved abortive for want of quorum; there were three such only in the previous year. Proposals for the introduction of municipal reform have now been received and are being carefully considered by the Local Government.

Expenditure on "Public safety" rose from Rs. 2·94 lakhs to Rs. 3·05 lakhs. As in the previous year, most of the municipalities enjoyed immunity from fire. There was, however, a destructive fire at Mergui, where one whole quarter of the town consisting of 132 houses was burnt down and the damage was estimated at Rs. 3 lakhs. The Mandalay Fire Brigade attended 20 fires, which destroyed 100 houses valued approximately at Rs. 57,000. There were also three fires at Akyab, which destroyed 19 houses valued at Rs. 6,800, and two at Prome, where 156 houses, mostly of *thetkè* and bamboo, were destroyed. The Moulmein Fire Brigade attended 11 fires as in the previous year. Out of the total expenditure of Rs. 3·05 lakhs, a sum of Rs. 2·67 lakhs was spent on lighting and Rs. 38,467 under the head "Fire (Establishment, purchase of fire engines, buckets, repairs, etc.)"

There was no capital outlay on water-works during the year, except a small sum of Rs. 2,080 at Prome, and Rs. 1,000 at Bassein. Charges on account of establishment, repairs, etc., in connection with water-supply fell slightly from Rs. 1,24,284 to Rs. 1,17,596.

No capital expenditure was incurred in connection with drainage works, except at Prome, where the sum spent amounted to Rs. 16,148 only. Charges on account of establishment, repairs, etc., amounted to Rs. 30,555 as compared with Rs. 40,194 in the previous year. The total expenditure on conservancy fell slightly from Rs. 8·56 lakhs to Rs. 8·40 lakhs. The small capital expenditure incurred during the year, both under "Water-supply" and "Drainage" is accounted for by the fact that some difficulty is still being experienced in obtaining pipes, etc., for water-works. As prices fall to their normal level and materials become more readily obtainable, it is expected that the programme of works will be fairly extensive in the next and succeeding years under these heads. A sum of Rs. 4,59,500 was expended on the acquisition of an insanitary area on the Mergui foreshore, which had been devastated by fire and which it is proposed to lay out on sanitary lines.

Expenditure under "Hospitals and Dispensaries" declined from Rs. 7·52 lakhs to Rs. 6·78 lakhs, owing chiefly to completion of the works under construction at Toungoo and Tavoy and to the purchase of land and building at Akyab for the extension of the hospital buildings in the previous year. A grant of Rs. 30,000 from Provincial Funds was made to the Kyaukpyu Municipality for the erection of a new dispensary and out-houses.

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Expenditure on education rose from Rs. 1,83,348 to Rs. 2,73, 663, showing an increase of Rs. 90,315, nearly three-fourths of which were contributed by the municipalities in Upper Burma and the remainder from the Moulmein Municipality in Lower Burma, which had paid little or nothing towards education in the past. The increases are most noticeable in the Sagaing and Meiktila Divisions, where the expenditure amounted to Rs. 19,365 and Rs. 18,656 during the year of report against Rs. 768 and Rs. 50 in the previous year.

The number of notified areas, *i.e.* areas in which certain provisions only of the Municipal Act are in force, remained the same as in the previous year, *viz.* 22. There was no alteration of boundaries of any of the notified areas during the year. The total income of these areas, excluding opening balances amounting to Rs. 4·68 lakhs and extraordinary receipts amounting to Rs. 0·24 lakh, rose from Rs. 8·70 lakhs to Rs. 9·50 lakhs. The incidence of taxation varied from Rs. 9-5-9 at Maymyo to Rs. 0-4-0 at Myitngè, both in the Mandalay District. The average incidence for all the notified areas rose slightly from Rs. 2-3-5 to Rs. 2-8-9.

The year 1918-19 was a most unhealthy year, as practically all municipalities reported an increase of death rate. The excess mortality was chiefly due to the influenza epidemic, which first appeared in Rangoon and spread rapidly throughout the Province. The towns which suffered most severely from this disease were Mandalay, where 817 deaths were recorded between August 1918 and March 1919; Prome, where 384 deaths occurred within the short period from September to December and Akyab, where there were 332 deaths. The disease visited nearly all other towns, though the mortality was not so high as at the three places mentioned. Several municipalities omit to report the number of deaths from influenza, but from the abnormally high figures shown under the head "Fevers", it may safely be assumed that influenza was responsible for a very large proportion of deaths under this head. Serious outbreaks of plague are reported from four Municipalities in Lower Burma and two municipalities in Upper Burma. The heaviest mortality was at Prome, where there were 449 deaths. Thonzè and Bassein recorded 200 and 284 deaths, respectively, while at Kyaikto and Minbu there were 136 and 106 deaths. The number of deaths at Mandalay fell from 2,429 in the previous year to 260 in the year of report. Twelve municipalities in Lower Burma and two municipalities in Upper Burma were free from the infection. Akyab, Paungdè and Henzada suffered badly from cholera, though at the first named place the disease was confined mainly to the coolie classes. The number of deaths at these places were 130, 105 and 126, respectively. Cholera was prevalent in most of the municipalities in the Irrawaddy Division and in a few of the municipalities in the Tenasserim Division. Municipalities in the Magwe Division were free from this disease. Mandalay recorded 99 deaths from cholera. Serious outbreaks of small-pox occurred only at Mandalay and Myingyan, where the deaths were 372 and 240. Among the notified areas there were more or less serious outbreaks of plague at Minhla (47 deaths), Meiktila (47 deaths) and Shwedaung (34 deaths). Plague broke out for the first time at Kalaw, but owing to the prompt and energetic measures taken to combat it, the disease was stamped out. Eleven died out of the 19 persons attacked.

Marine.

Light-houses and light-ships.

72. The light-ships "Danidaw" stationed at the Baragua Flats and "Kalagauk" at the Krishna Shoal were towed in turn into Rangoon by the R.I.M.S. "Mayo" for their annual overhaul and repairs. During their stay in Rangoon the relief light-vessel "Martaban" took their places. The Eastern Grove light was shut down on the 1st March 1919 for repairs, and re-exhibited on the 9th April. In the interval, a temporary fixed light took its place. The Spit light-vessel "Kemmendine" was relieved by the relief light-vessel "Martaban" for her annual repairs and overhaul. The R.I.M.S. "Mayo" was the station vessel during the year and carried out all reliefs in connection with light-houses and light-ships. Owing to the irregular

steamer service to Akyab, advantage was taken of her visits to that port to ship Public Works Department stores, specie and goods on behalf of other Government departments. She was also employed in the transport of troops to and from Port Blair and in escorting mine-sweeping vessels to Calcutta on the conclusion of their service. There were no deaths at any of the light-houses, and the health of the light-keepers, both European and Indian, and of the crews of the light-ships was good throughout the year. The total expenditure on light-houses and light-ships fell from Rs. 2·97 lakhs to Rs. 2·61 lakhs; the expenditure on repairs to light-houses by the Public Works Department fell by Rs. 40,261, that on oil fell considerably from Rs. 6,174 to Rs. 260, that on blue light composition from Rs. 4,114 to Rs. 45 and that on provisions by Rs. 12,599, while the expenditure on stores and contingencies rose from Rs. 16,846 to Rs. 44,089. The receipts from coast-light dues rose from Rs. 3·17 lakhs to Rs. 3·44 lakhs in the year of report. These amounts do not include the annual contribution of Rs. 4,200 paid by the Port Commissioners, Rangoon, towards the Spit light-vessel. The annual *pro formâ* account of the Burma coast-light dues showed a loss of Rs. 1,59,456 on the year's working—a result better by Rs. 5,938 than that of the previous year.

Port Administration, Rangoon.

73. The revenue account of the Commissioners of the Port of Rangoon closed at the end of the year with a surplus of Rs. 6·96 lakhs as compared with a deficit of Rs. 1·30 lakhs in the previous year. Though payments, including contributions to reserve funds, rose from Rs. 42·75 lakhs to Rs. 45·31 lakhs, this was more than counterbalanced by an increase in receipts from Rs. 41·45 lakhs to Rs. 52·27 lakhs. The increase in revenue was mainly due to an increase in the export trade, and especially to the shipment of large quantities of timber and other commodities over the wharves on Government account. The war surcharge also brought in a revenue of Rs. 3·43 lakhs as compared with Rs. 0·36 lakh in the previous year. The increase in payments as compared with 1917-18 was mainly due to the general increase in the cost of all maintenance and repairs, coal and stores. No new works were undertaken during the year and no loans were raised. The total of loan indebtedness was the same as last year, namely Rs. 298·62 lakhs, and the securities, valued at cost price, at the credit of the different sinking funds, rose from Rs. 57·11 lakhs to Rs. 65·49 lakhs. During the year a sum of Rs. 75,000 was placed to the credit of the revenue reserve fund, a similar amount was added to the fire and marine insurance fund, and Rs. 1,25,000 to the depreciation and replacement fund. The total amount at the credit of the various reserve funds now stands at Rs. 43·35 lakhs as compared with Rs. 38·62 lakhs last year.

The Customs returns showed that 87·07 per cent. of the foreign and coasting trade of the Province passed through Rangoon; of the imports 60·7 per cent. were landed on, and of the exports 18·2 per cent. were shipped from the premises of the Commissioners, and the rest passed through private premises or were discharged into, or landed from inland vessels; the corresponding figures of the previous year were 85·71, 58·6 and 15·1. The inland (river borne) trade, which passed over the premises of the Commissioners, rose from 664,770 tons to 750,895 tons. The revenue of the traffic department increased from Rs. 21·16 lakhs to Rs. 28·04 lakhs, the latter figure including a war surcharge amounting to Rs. 2·80 lakhs. There was a slight increase in the receipts of the port department from Rs. 7·72 lakhs to Rs. 8·46 lakhs, the war surcharge of Rs. 0·63 lakh being responsible for the greater part of this. There was a substantial increase in the revenue from river dues from Rs. 12·18 lakhs to Rs. 15·34 lakhs. The number of berths available for sea-going ships remained the same as in the previous year and in only one case was it found impossible to berth a ship immediately on arrival. The cargo landed on the Commissioner's wharves and pontoons, directly or by lighters, from sea-going vessels amounted to 363,017 tons against 327,991 tons in the previous year. The tonnage of goods landed from vessels arriving from European and other ports outside Asia declined by 16 per cent., while that from Asiatic ports increased by 16 per cent. The cargo shipped direct into sea-going vessels increased from 78,664 tons to 144,321 tons. The number of passengers, excluding troops, to or from ports outside Burma, who passed over the wharves and

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pontoons of the Commissioners, increased considerably from 423,699 in 1917 to 444,418 in 1918. At the close of the year the number of godowns let or available for letting was 164, with a floor area of 640,517 square feet, as compared with 166 godowns, with a floor area of 639,441 square feet, at the end of the previous year. Traffic over the Commissioners' sidings increased by 53 per cent. from 279,310 tons to 427,819 tons.

No new engineering work of any magnitude was undertaken during the year, but the usual maintenance and repairs were carried out efficiently and economically.

The upper river training wall continued to act satisfactorily, and the average sinkage since April 1914, when the first set of through levels was taken, was 0·643 feet. The settlement of the apron continued. It is estimated that 481,707 tons of silt were deposited during the year in the embayment behind the wall, and vegetation is increasing and spreading over the silted area towards the right bank of the river. The bund for the training of the Kanoungto creek was completed, and the average sinkage since completion was 2·46 feet.

The number of steamers, excluding Government vessels, which arrived in the port, rose from 914 of 1,744,936 net registered tonnage to 1,038 of 1,990,472 tons. Four hundred and eighty-two sailing vessels of a total tonnage of 41,140 entered the port during the year as compared with 223 vessels of a total tonnage of 30,918 tons in 1917-18. The number of cargo boats and passenger and cargo sampans licensed during the year rose from 776 and 5,259 to 964 and 5,608, respectively.

Consideration of the proposal to provide a dry dock for Rangoon was deferred till the budget meeting of the Commissioners to be held in 1920. The Commissioners declared themselves willing to co-operate in providing cold storage accommodation, when and as such facilities are required. The Commissioners made sundry recommendations to the Local Government, with a view to the acquisition of additional areas of foreshore within the limits of the port, but it was decided to suspend further action pending the creation of the Rangoon Development Trust. The mooring area for vessels loading dangerous petroleum and benzene was altered and extended during the year, in consequence of the burning and sinking of the Burmah Oil Company's steamer "Ayuthia." A general scheme for protection from erosion of the river banks below the Hastings shoal, at an estimated cost of Rs. 31 lakhs, was approved by the Commissioners, who agreed that this work should be taken in hand as soon as the financial position permits.

Pilot Service: Rangoon.

74. The Rangoon Pilot Fund opened with a debit balance of Rs. 10,357. Ordinary receipts during the year rose from Rs. 2,90,800 to Rs. 3,69,358, and the expenditure from Rs. 2,92,177 to Rs. 3,57,403, yielding a surplus of Rs. 11,955 on the year's working, and thus resulting in a credit balance of Rs. 1,598. The actual closing balance, after taking into account extraordinary receipts and expenditure, was Rs. 19,138. In order to improve the financial stability of the fund, revised rates of pilotage fees were sanctioned from the 1st June 1919. No contribution was set aside for the Pilot Vessels' Depreciation Fund, but, owing to interest on investments, the balance at the credit of this fund (including investments at cost) rose from Rs. 2·17 lakhs to Rs. 2·25 lakhs. Excluding miscellaneous receipts, the gross pilotage fees rose from Rs. 2·90 lakhs to Rs 3·65 lakhs, and the payments to pilots rose from Rs. 1·97 lakhs to Rs. 2·59 lakhs. The pilot service was well maintained during the year. There were 32 delays at the pilot station, as compared with only nine in the previous year, due in 12 cases to the arrival of vessels before the advised date, in six cases to vessels arriving unadvised and in 14 cases to all the pilots being engaged.

Minor ports.

75. Besides Rangoon, there are six ports in the Province: Akyab, Kyaukpyu Bassein, Moulmein, Mergui and Tavoy, in which Port Funds are maintained. The total receipts and expenditure of these funds rose from Rs. 3·95 lakhs to Rs. 4·40 lakhs and from Rs. 3·63 lakhs to Rs. 4·18 lakhs, respectively, in the year

of report. There was an increase of receipts in all funds except Tavoy and an increase of expenditure in all except Mergui. In Moulmein and Akyab the expenditure during the year exceeded the receipts and consequently the closing balances were less than in the previous year by Rs. 11,249 and Rs. 11,732, respectively. At the end of the year the Moulmein and Tavoy Port Funds owed the Local Government Rs. 45,767 and Rs. 51,804, respectively.

Besides Rangoon, there are pilot funds at Akyab, Bassein and Moulmein. These funds derive their income from pilotage fees, and the expenditure consists mainly of the cost of maintenance of pilot vessels and payments to pilots. The aggregate receipts of the three pilot funds rose from Rs. 0·90 lakh to Rs. 0·95 lakh. The closing balances of the Akyab and Moulmein Pilot Funds showed an increase, while in Bassein, the expenditure exceeded the receipts, causing a corresponding reduction in the closing balance.

Commercial marine: shipping.

76. Repeated voyages are counted in the statistics given in this paragraph and coasting trade means trade with Indian ports, whether British or not. The number of vessels entering ports in Burma increased from 5,905 to 7,160 and their aggregate tonnage from 2,289,022 tons to 3,701,928. The number of vessels clearing from ports in Burma rose further from 5,662 to 6,701 and their aggregate tonnage from 2,304,087 tons to 2,688,877, *i.e.*, slightly less than the figure for 1915, *viz.* 2,707,365 tons. These figures show a rise in tonnage, due to the gradual resumption of normal conditions consequent on the termination of the war.

The number of vessels employed in foreign trade, which entered the ports of Burma, rose from 637 to 799 and their tonnage from 895,672 tons to 1,050,574, and the number which cleared rose from 709 to 937 and their tonnage from 980,446 tons to 1,213,546. Of the former, sailing ships numbered 229 of 24,641 tons and of the latter 315 of 38,126 tons. Corresponding figures for the previous year were 169 of 31,053 tons and 218 of 32,176 tons, respectively. The number of vessels which entered Rangoon from foreign ports rose again from 382 to 489 and their tonnage from 751,798 tons to 880,387, and the number which cleared rose further from 401 to 521 and their tonnage from 826,452 tons to 1,013,218, the highest figures for the past five years. Of the former, sailing ships numbered 47 of 7,701 tons and of the latter 35 of 7,732 tons, respectively. These figures show a decrease of 9,418 and 6,428 tons, respectively, indicating that steam-vessels are rapidly resuming their place in foreign trade.

The number of vessels engaged in the coasting trade, which entered the ports of the Province, rose from 5,268 to 6,361 and their tonnage from 1,393,350 tons to 1,651,354, and the number which cleared rose from 4,953 to 5,764 and their tonnage from 1,323,641 tons to 1,475,331. Of the former, sailing ships numbered 5,329 of 199,634 tons and of the latter 4,788 of 167,519 tons. The figures for the previous year were 4,347 of 133,190 tons and 4,051 of 127,861 tons, respectively, so that the number and tonnage of sailing vessels employed in the coasting trade further increased. Of the vessels engaged in the coasting trade, the number of steamers, which entered Rangoon, rose from 547 to 654 and their tonnage from 1,001,001 tons to 1,232,635, and of those which cleared from Rangoon, the number of steamers rose from 532 to 607 and their tonnage from 931,480 tons to 1,098,025. The number of sailing ships which entered rose from 202 to 426 and their tonnage from 13,583 to 32,172, and of those which cleared rose from 191 to 437 and their tonnage from 13,535 tons to 36,005.

The number of British vessels, entering the ports of the Province from foreign countries during the year, rose from 346 to 456, and the number of foreign vessels also rose from 291 to 343. The number of vessels under French colours fell from 15 to 7, but their tonnage rose from 5,640 tons to 6,174. Chinese vessels increased both in numbers and in tonnage from 49 of 49,084 tons to 66 of 69,716 tons. The number of Dutch vessels fell from 52 of 77,631 tons to 24 of 67,638. The number of Greek and Italian vessels also fell from 6 of 10,766 tons to 2 of 3,793 and from 15 of 38,444 tons to 8 of 20,363, respectively. There was a very large increase in Japanese shipping from 86 vessels of 149,257 tons to 151 of 275,421 tons. The number of those under the Norwegian flag ell

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slightly from 36 to 34, but their tonnage rose from 33,211 tons to 39,229. Fifteen vessels of 7,817 tons under American colours entered the ports of the Province against none last year.

In the coasting trade the number of vessels which flew British colours rose from 815 to 841 and of those which flew foreign colours from 80 to 84. The number of native craft rose from 3,486 of 93,988 tons to 4,082 of 126,331 tons.

In the foreign trade of Rangoon, 183 vessels of an aggregate tonnage of 394,683 tons entered under British colours as against 148 vessels of 386,813 tons, and 279 vessels under foreign colours of an aggregate tonnage of 483,291 tons as compared with 233 vessels of 364,907 tons in 1917-18. The total number of foreign vessels comprised 145 Japanese, 48 Chinese, 28 Norwegian, 24 Dutch, 7 Russian, 6 Italian, 5 each American, French and Spanish, 2 each Danish and Greek and 1 each Portuguese and Swedish. Of the total clearances, 183 vessels representing 443,368 tons were under the British flag as against 141 vessels of 416,339 tons in the preceding year; and 306 vessels with a tonnage of 566,700 tons were under foreign colours as against 249 vessels of 409,038 tons in 1917-18. The latter comprised 152 Japanese, 46 Chinese, 39 Dutch, 30 Norwegian 13 Russian, 5 each French, Italian and Spanish, 4 American, 2 each Danish, Greek and Swedish and 1 Portuguese. Besides these, there were also 27 entries and 32 clearances of native craft as against 1 and 11 in the previous year. The total number of vessels which entered in the coasting trade of the Province was 6,361 aggregating in tonnage 1,651,354 tons as against 5,268 representing 1,393,350 tons; and 5,764 vessels with a burthen of 1,475,331 tons cleared as compared with 4,953 vessels of 1,323,641 tons.

In the coasting trade of Rangoon, 947 British vessels (including 380 native craft) entered the port as against 646 (including 187 native craft) and 133 foreign vessels, as compared with 103: these latter included 50 Dutch, 39 Japanese, 22 Russian, 11 Norwegian, 8 Chinese, 2 French and 1 Swedish. Clearances showed 943 British vessels (including 360 native craft) against 635 (including 178 native craft) and 101 foreign vessels as compared with 88 in the preceding year: the foreign vessels consisted of 34 each Japanese and Dutch, 20 Russian, 8 Chinese, 4 Norwegian and 1 French.

Of the total number of entries at Rangoon in the foreign trade, 241 steamers and 24 sailing vessels came in ballast against 199 and 14, while 3 steamers cleared in ballast against 2 in the previous year. In the coasting trade, 118 steamers and 52 sailing vessels entered in ballast against 59 and 6; clearances in ballast showed 20 steamers and 149 sailing vessels as compared with 27 and 52 in 1917-18.

Commercial marine: wrecks and casualities.

77. During the year there were 23 accidents to sea-going vessels in the port of Rangoon, 10 more than in the previous year. Fourteen of the accidents occurred, while the vessel was in charge of a pilot or assistant harbour-master, and in two cases it was found necessary to take action against the officers concerned. None of the accidents was serious. The accidents referred to above do not include the loss by fire of the steamers "Chi Yuen" and "Tenasserim."

Government steamers and launches.

78. The year opened with 164 Government vessels. The Royal Indian Marine Vessel "Sladen" continued to be at Rangoon until December 1918 on the examination service of the Port of Rangoon. The "Bhamo" and "Sladen" carried by river 2,800 troops and followers, besides women and children, convicts and ammunition, and about 1,700 tons of stores and 16,000 packages, as compared with 900 troops and followers and 900 tons of stores and 500 packages carried in the previous year, but their total earnings fell by Rs. 21,034, from Rs. 2·48 lakhs to Rs. 2·27 lakhs. Three motor-launches and a cutter were added to the flotilla during the year. A motor-launch, a steam-launch and a flat were sent to Upper Burma for work in connection with the Kuki expedition. One old motor-launch, the hull of which was found unserviceable, was condemned. At the close of the year there were in Upper and Lower Burma 90 steam-launches, 2 steam-barges, 27 motor-launches, 13 house-boats, 11 flats, 7 barges, 1

water-boat, 4 light-ships, 3 dredgers, 2 buoy-vessels, 1 mooring boat, 3 cargo-boats, 1 pony-boat and 1 rock-smasher, 166 in all, besides 2 steam-launches which continued to be hired by Government and 20 vessels of various kinds which were still in Mesopotamia. The steam-launch "Mogok," while on duty connected with the Kuki punitive measures, sank while at anchor about a mile above Shwesaye, but she was successfully floated. The steam-launch "Kalewa" was badly holed, having struck a snag two miles below Paungbyin. She was re-floated and made fit to resume duty at Mawlaik in connection with the Kuki punitive measures. The three steam-launches, which were taken away from the districts in 1916-17, continued to be employed during the year on Customs and Military patrol work in the Rangoon River, or on work in connection with the Kuki expedition. The total earnings of the Government vessels for the year rose by Rs. 1·31 lakhs to Rs. 8·80 lakhs. The Police, Telegraph, Customs and other boats in the various Districts were in good condition and fully employed. A port gig and three police country boats were condemned. The wood and coal depôts continued to supply requirements and the fuelling arrangements carried out by the Forest Department continued to be satisfactory. Two new wood depôts were opened in the year. The value of the stores received in the store godown at Rangoon, Mandalay and Bassein was Rs. 1·05 lakhs as compared with Rs. 1·6 lakhs in the previous year, and the value of the stores issued was Rs. 3·16 lakhs, a decrease of Rs. 64,319. The value of the work done at the Marine Workshop, Mandalay, fell further from Rs. 61,458 to Rs. 57,719. The cost of repairs to vessels and works carried out at the Government Dockyard, Rangoon, fell from Rs. 3·81 lakhs to Rs. 2·71 lakhs.

Marine works and surveys.

79. During the year three swinging moorings below the Hastings shoal were replaced by four berths of fixed moorings. The dredger "Cormorant" worked on the Monkey Point channel and Danidaw reach throughout the year. She dredged 1,217,000 tons and successfully maintained a depth of not less than 14 feet reduced on the principal tracks of these channels. The dredger "Hastings" also dredged 94,250 tons in 129 working days at the various wharves and jetties. During the year 30 vessels had, owing to insufficient water, to complete their loading below the Hastings as compared with 42 in the previous year. Six vessels, the same number as last year, could not on arrival enter the harbour, owing to insufficient water, and were detained below the Hastings. With the exception of the shoaling on the south side of the harbour, the river bed in general remained normal throughout the year. During the year complete new surveys of the river bed of the inner harbour and also from Elephant Point to Fairway buoy, were completed. The areas were sounded, re-coastlined and all shore details were brought up to date and newly plotted.

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

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Agriculture.

Occupied and cultivated areas.

80. The occupied area of the Province increased during the year from 18,625,489 to 18,740,205 acres, or an increase of 114,716 acres, against an increase last year of 268,888 acres over the preceding year's figures. The cultivated area fell by 94,051 acres to 14,573,976 acres and the matured area by 446,603 acres to 13,475,979 acres, while the fallowed area increased by 208,767 acres to 4,166,229 acres. The variations exhibited by the above figures are due to the difference between an abnormally good season in 1917-18 and an indifferent one in 1918-19.

The occupied area increased in all Lower Burma districts except Ma-ubin, where the decrease was trifling; Thatôn, where the decrease was mainly due to a transfer of 44,506 acres to the Pegu District; and Amherst, where the decrease of 8,601 acres was due to areas being taken up for salt manufacture, to abandonments due to floods and to resumptions of lands by Government. The decrease in the area cultivated and the increase in the non-matured area are also common to nearly every district in Lower Burma, and are due to floods and insufficient late rains. The area over which crops failed was exceptionally large in the Ma-ubin and Insein Districts, which show increases of 98,179 acres and 96,917 acres, respectively, over the figures of the previous year.

In Upper Burma the season was, on the whole, less unfavourable than in Lower Burma and all districts except Minbu show an increase in the area occupied. The small decrease in the Minbu District is due to the transfer of two small

islands with an area of 6,239 acres to the Magwe District. Owing to deficient rainfall there were, however, fairly general increases in the area fallowed and in the area over which crops failed.

Nearly all the land cropped more than once lay in the Magwe, Meiktila and Sagaing Divisions of Upper Burma and its area increased from 595,567 to 673,053 acres, owing to an extension of the practice of sowing millet and peas after early sessamum.

The crop most largely cultivated was, as usual, rice, which occupied 10,384,404 acres, or over 68 per cent. of the gross cropped area. The area under this crop, however, contracted by 322,812 acres, owing to unfavourable climatic conditions and to floods. Owing to good rainfall at the beginning of the season, the area under sessamum, which was the next most popular crop, increased by 16 per cent. to 1,267,195 acres. Though efforts were made by district officials to discourage the sowing of small white beans in anticipation of a reduced European demand and a consequent fall in prices, both of which actually occurred, the area under this crop, nevertheless, again increased by 15 per cent. to 553,876 acres. Red and white millet occupied 467,428 acres, but, owing to deficient late rains, a large proportion of this crop failed. High prices and a favourable early rainfall stimulated the growing of cotton, which covered 371,829 acres, or 72,028 acres in excess of the highest figure previously recorded. The area under groundnut was 249,427 acres, or practically the same as the previous year, but that under tobacco increased by 20 per cent. to 106,995 acres, owing to the high prices received in 1917-18. The areas under rubber and sugar-cane increased slightly to 66,524 and 20,379 acres, respectively.

Area irrigated.

81. The area irrigated from all sources fell from 1,249,986 to 1,236,062 acres, or 72 per cent. of the irrigable area. The area irrigated from Government canals increased by 16,941 acres to 502,580 acres, but this was more than counterbalanced by heavy decreases, owing to deficient rainfall in the areas irrigated from Government and private tanks. In the Shwebo District 33,450 acres were irrigated for the first time from the Ye-u canal, but the area irrigated from the Shwebo canal system declined by 6,544 acres, owing to neglect on the part of cultivators to maintain water-courses and to temporary abandonment of land by non-residents, owing to a bad paddy market in the previous year. The poor rainfall was responsible for decreases of 16,227 acres and 6,019 acres in the total area irrigated in the Yamèthin and Magwe Districts, respectively.

The Agricultural Department.

82. Comprehensive proposals for the reorganization of the staff of the Agricultural Department were accepted by the Local Government during the year of report, and are now under consideration by the Government of India. The plans of the proposed Agricultural College and Research Institute at Mandalay were approved, sanction was given to an expenditure of Rs. 11·65 lakhs, towards which the Government of India have contributed Rs. 6 lakhs, and the work of construction has been taken in hand. The staff of the department was strengthened by the appointment of an Economic Botanist and by the temporary appointment of an Agricultural Engineer, and the sanction of the Secretary of State to the appointment of a third Deputy Director of Agriculture is awaited. The four Assistants under training at the Poona Agricultural College made satisfactory progress during the year, but one of them unfortunately died of influenza while on leave. Another man sent by the *Sawbwa* of Hsipaw State joined the College during the year and may prove a valuable recruit in the Northern Shan States Circle, if he completes his training. The four District Agriculturists under training at Hmawbi for the Irrawaddy Division finished their course and started work in their respective districts. The District Agriculturist for the Amherst District also completed his training, but was temporarily retained at Hmawbi and will join his appointment in 1920. Sixteen members of Co-operative Societies and two Kachins from the Bhamo District received instruction in agricultural methods at the various farms of the department and all were granted stipends at a total cost of Rs. 1,013. Negotiations are in progress for the establishment of an aided

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

Vernacular Agricultural School at Pyinmana. The expenditure of the department rose from Rs. 2·39 lakhs to Rs. 3·58 lakhs, of which Rs. 1·48 lakhs represents contributions to botanical and other public gardens; receipts increased slightly from Rs. 12,892 to Rs. 13,472.

Agricultural research.

83. As in the previous year there were three main Agricultural stations at Mandalay, Hmawbi and Tatkôn, respectively, besides five sub-stations and eight district farms. Experiments with a chain pump in connection with a scheme for the well irrigation of cotton were begun in the Lower Chindwin District and at the Hmawbi station a further 10 acres of suitable land were acquired for purposes of garden cultivation.

Much useful experimental work was done in connection with rice cultivation. Experiments at Mandalay showed the great importance of early irrigation and ploughing and the evil effects of overcrowding in nurseries were demonstrated. A conference was held at Maymyo to co-ordinate the action of the Irrigation and Agricultural Departments and a tank was erected for the careful measurement of water applied to experimental plots and to collect data applicable to the irrigation of paddy. In Lower Burma the pure strains bred by the Department continued to do well and the fact that millers paid Rs. 5 to Rs. 15 per 100 baskets above the usual market rate to secure the produce afforded gratifying tangible evidence of the improvement effected. The most suitable varieties of grain for the new and expanding trade in parboiled rice were determined and it is hoped to start organized distribution of the seed in 1920.

The merits of drill sowing as opposed to broadcasting in the case of sessamum were investigated and the superiority of the former were demonstrated. The designing of a suitable seed drill for the sowing of sessamum engaged the attention of the Agricultural Engineer and it is anticipated that the adoption of this method of cultivation will have very important and wide-reaching results. The collection of varieties of sessamum was continued and tests were carried on to obtain further data on the respective merits of eight varieties.

Wheat of both the macaroni and bread varieties was tried in six places in Upper Burma and three useful strains of the former were secured, giving a 13 per cent. greater yield than local varieties. It is probable also that some promising strains will be obtained as the result of trials of bread wheat conducted at Yawnghwe in the Southern Shan States, but the main progress made has been in method and it was proved that green manuring doubles the yield.

Experiments in groundnut cultivation on the district farms in the Pakôkku and Myingyan Districts yielded much valuable information. It was proved that the small seeded upright types, such as Tumbu, Small Japanese and Spanish, were not only far more profitable to grow, but much more easy to harvest than the spreading Burmese type now grown.

The Agricultural Chemist conducted an important and interesting series of experiments as to the hydrocyanide contents of the small white Burma bean and demonstrated that the fear of prussic acid poisoning was quite unjustified. The prejudice will, however, take some time to disappear and the attention of the department was devoted to possible substitutes.

Investigations into the cotton problems of the Province were conducted at Tatkôn and made considerable progress. A satisfactory pure strain, both as regards yield and ginning percentage, has been secured and some 1,500 acres in the Meiktila, Myingyan and Pakôkku Districts are now under this variety. A premium of Rs. 10 to Rs. 15 per 100 viss was offered by cultivators for the seed and a small Government ginnery is being erected at Mahlaing in the Meiktila District to deal with the produce and to keep the seed pure. Cross breeding between Shan and *Wagyi*, *Wagale* and Broach varieties was continued with most promising results, but the yields of Cambodia and other exotic varieties were, on the whole, disappointing.

Experiments in jute cultivation were made both in Upper and Lower Burma with somewhat indifferent results, and owing to unsuitable distribution of rainfall and high cost of labour as compared with Bengal, it seems doubtful whether jute in Burma is likely to be a success.

Among fodder crops guinea grass did well at Hmawbi and many applications for roots were received from rubber planters. Experiments failed to discover an antidote to the parasite, *Striga lutea*, which attacks jowar, and experience indicated that the special adaptation of the plant and its seed militate against the discovery of a complete remedy.

Successful experiments were made with potatoes, barley and linseed, but oats did not do well.

Proposals for a dairy at Mandalay were submitted, but the whole subject is beset by difficulties, such as the introduction of exotic breeds and the conflicting claims of the cultivator and the dairyman.

Seed distribution and demonstration.

84. In the Northern Circle, 7,931 baskets of selected strains of paddy seed were distributed and the supply was unequal to the demand. An effort was made to push wheat cultivation and 4,000 baskets of seed from the Shan States and the Sagaing District were distributed, mostly in the Shwebo District. In addition 5,824 lbs. of selected gram and 5,148 lbs. of cotton seed besides a considerable amount of miscellaneous seeds were supplied. In the Southern Circle 4,834 baskets of pure strain varieties of paddy were issued, the bulk of which was grown at Hmawbi. Cotton seed to the amount of 32,381 lbs. was supplied, principally from Tatkôn and Meiktila, and the farms at Pakôkku and Allanmyo issued 7,931 lbs. of groundnut. Issues of small white beans dropped to 13,024 lbs., or one-sixth of the issues of the previous year. As in the Northern Circle, seed for miscellaneous crops was also distributed, the most important being 500 lbs. of jute and 40 lbs. of tobacco. District Agriculturists did good work in the supervision and explanation of district experimental work and in the distribution of seed. European implements were almost unprocurable, and when available the price was quite beyond the means of the ordinary agriculturist. There is a keen demand for Cyprus ploughs, and 150 are wanted in the Sagaing District when available at a reasonable price. The question of designing and manufacturing suitable farm implements for local needs was taken up by the Agricultural Engineer, who was, however, much handicapped by lack of subordinate staff.

Veterinary Department Staff and Veterinary School.

85. The services of two Superintendents having been placed at the disposal of the military authorities, only one Superintendent was available for duty in the Province during the year. The subordinate staff at the end of the year consisted of 19 Inspectors, including two serving in the Shan States, and 166 Veterinary Assistants serving in Burma proper and 17 serving in the Shan States. As compared with the previous year there was an increase of 9 Assistants in Burma proper and a decrease of 1 Assistant in the Shan States, the number of Inspectors remaining the same. Sanction was given to the further strengthening of the subordinate staff by 3 Deputy Superintendents, 7 Inspectors and 52 Assistants. The number of animals treated by Assistants while on tour rose from 71,567 to 73,443, exclusive of those dealt with in the Shan States for which complete statistics are not available. The cost of the department rose from Rs. 3·08 lakhs to Rs. 3·81 lakhs, chiefly on account of increased expenditure on subordinate establishment and Veterinary instruction.

There were 42 pupils under training at the Veterinary School at Insein at the close of the year as compared with 19 at the end of the previous year. All the 18 pupils in the senior class passed the written examination, but 6 failed in practical work and were kept back, the remaining 12 being posted to districts.

The behaviour of the pupils was good and they received practical training in the field. The number of animals treated at the Veterinary Hospital fell from 2,310 to 1,999 and the daily average attendance from 32 to 23. The opening of Additional Veterinary Centres at suitable local centres was under consideration during the year. The number of slides examined at the laboratory increased from 6,751, of which 4,198 came from the districts, to 6,858, of which 4,942 were received from the districts. The number of pupils at the Veterinary School at Taunggyi in the Southern Shan States was 6, the same figure as in the previous year. No breeding operations were undertaken during the year.

CHAP. IV.—PRODUCTION AND DISTRIBUTION. Cattle disease.

86. In Lower Burma the year was unfortunately marked by a very serious outbreak of rinderpest and the mortality specifically attributed to this cause amounted to over 20,000, the Tharrawaddy, Insein, Prome and Henzada Districts being the most seriously affected. There were also sporadic outbreaks in many districts in Upper Burma, though serious losses were mainly confined to the Katha and Thayetmyo Districts with 3,000 and 1,000 deaths, respectively. Energetic action under the segregation rules was taken and no less than 64,824 animals were inoculated. As a result of these measures the Province, on the whole, escaped lightly, though the mortality was the heaviest experienced since 1905-06.

The large herds of cattle bred by Indians for the sale of milk in the neighbourhood of large towns played a considerable part in the spread of disease, and remedial measures are under the consideration of the Local Government.

Anthrax occurred in the Insein and Myaungmya Districts, which had 429 and 279 deaths, respectively, from this cause, but it gave no trouble elsewhere. Foot-and-mouth disease was very prevalent in the Bassein District with 375 deaths and in the Myaungmya District with 391 deaths, and there was a fair amount of this disease also in the Tharrawaddy, Bhamo and Putao Districts.

Surra was chiefly confined to Upper Burma and the Shan States, but losses were not serious except in the Kēngtūng State.

The number of deaths among cattle (bovines) in Burma proper from rinderpest, anthrax (under which head are included hœmorrhagic septicœmia and black quarter) and foot-and-mouth disease were 25,919, 2,451 and 2,081, respectively, as against 4,698, 1,844 and 1,921, respectively, in the previous year.

Stock.

87. Owing no doubt to the prevalence of rinderpest and the generally unhealthy character of the year, the number of mature bulls and bullocks declined in round figures from 2,387,000 to 2,373,000 and the number of cows from 1,355,000 to 1,333,000. The tendency to replace buffaloes by kine continued and the number of the former again fell from 824,000 to 809,000 approximately. The number of horses and ponies showed little change, but, owing to purchases for military purposes on the frontier, the number of mules fell from 1,611 to 1,196. On the other hand, the profitable business of pig breeding is on the increase in most districts and the number of pigs rose considerably from 305,000 to 369,000 approximately. Another successful cattle show was held at Yamèthin, at which some 4,000 head of cattle were exhibited. The report of a special committee on stock-breeding is under consideration by the Local Government.

Agricultural loans.

83. The agricultural advances made by Government during the year, exclusive of advances to Co-operative Societies, rose from Rs. 9·25 lakhs to Rs. 12·83 lakhs. At the commencement of the year Rs. 14·90 lakhs were outstanding as compared with Rs. 14·39 lakhs at the beginning of 1917-18, and the total amount on loan was thus Rs. 27·73 lakhs as against Rs. 23·64 lakhs in the previous year. The total amount due for collection during the year, excluding interest, rose from Rs. 15·39 lakhs to Rs. 19·33 lakhs. Of this amount Rs. 12·97 lakhs were collected, Rs. 8,365 were remitted and Rs. 1·37 lakhs were suspended by competent authority.

As in previous years, advances and collections showed striking differences between districts. Advances exceeding Rs. 40,000 were confined to the six districts of Akyab (Rs. 3·61 lakhs), Prome (Rs. 1·20 lakhs), Yamèthin (Rs. 1·40 lakhs), Shwebo (Rs. ·90 lakh), Pegu (Rs. ·44 lakh) and Pakôkku (Rs. ·48 lakh) and the same six districts with the addition of the Meiktila and Kyaukpyu Districts are responsible for approximately Rs. 17·25 lakhs of the total amount on loan. The five districts of Akyab, Kyaukpyu, Shwebo, Yamèthin and Prome were responsible for over half the total balance of Rs. 14·71 lakhs outstanding at the end of the year.

The amount suspended by competent authority during the year dropped by Rs. ·35 lakh to Rs. 1·37 lakhs and the amount overdue by Rs. ·63 lakh to Rs. 4·11 lakhs. The heaviest suspension amounting to Rs. 31,234 was granted in the Kyaukpyu District, but in only four other districts did the amount suspended

exceed Rs. 10,000. Floods and the unfavourable season were the causes of the suspensions granted.

The three districts of Akyab, Kyaukpyu and Yamèthin were responsble for Rs. 2·47 lakhs of the Rs. 4·11 lakhs overdue and in only two other districts did the amount overdue exceed Rs 20,000. A large proportion of the amount overdue on the 31st March 1919 was, however, paid in during the succeeding three months.

The amount advanced under the Land Improvement Loans Act was Rs. 7,600, or Rs. 6,350 less than in 1917-18. The sum of Rs. 42,275 was outstanding from the previous year, so that the total amount on loan at the end of the year was Rs. 49,875. Of a total sum of Rs. 12,861 due for collection during the year, Rs. 10,801 were collected, Rs. 200 were remitted, Rs. 1,535 were suspended and Rs. 1,174 were overdue. The balance outstanding at the end of the year was Rs. 38,874 as compared with Rs. 42,276 last. The money advanced was in the form of small loans for irrigation work.

The rate of interest charged by the Government of India to the Local Government on the Provincial Loan Account remained at $5\frac{1}{2}$ per cent. and the interest charged by the Local Government to cultivators at $6\frac{1}{4}$ per cent. with a penal interest of 8 per cent. The net financial result of the loan operations during the year of report, after repayment of principal and interest to the Government of India and deduction of principal remitted, was a profit of Rs. 32,890 as compared with a loss of Rs. 19,349 in 1917-18.

Protection from floods.

89. Embankments constructed for the protection of cultivation from floods are maintained by the Irrigation Branch of the Public Works Department. The area so protected rose from 810,645 acres to 819,904 acres, the gross revenue from Rs. 20·60 lakhs to Rs. 32·65 lakhs, the working expenses from Rs. 2·99 lakhs to Rs. 4·60 lakhs and the net revenue from Rs. 17·67 lakhs to Rs. 28·05 lakhs. Capital accounts are kept only for the more important embankments along the lower course of the Irrawaddy River on its right bank, and for other embankments along the Sittang River and elsewhere only revenue accounts are maintained. The total capital outlay on the former rose from Rs. 46·20 lakhs to Rs. 48·63 lakhs and the outlay during the year fell from Rs. 4·32 lakhs to Rs. 2·43 lakhs. The increase in working expenses is due to expenditure on the new embankment round the Yandoon Island in the Ma-ubin District. The large increase in revenue is partly due to the omission from last year's figures of a sum of Rs. 6 lakhs, which has been included in those of the present year and partly to the increase in the area protected.

The flood season in the Irrawaddy Delta was remarkable for the early rise of the river and the permanence of the flood. Numerous retirements were under construction in the Henzada, Ma-ubin and Bassein Districts. Three large breaches occurred in the first five miles of the Irrawaddy branch of the Yandoon Island embankment shortly after its completion. Estimates for strengthening and raising the crest of this embankment were prepared, and work during the year has mainly been confined to this strengthening. Expenditure on this scheme during the year amounted to Rs. 2·18 lakhs and the total expenditure till the end of the year to Rs. 6·16 lakhs. The work of training the Yenwe River in the Pegu District was continued and the double training bunds were extended for a further 8,000 feet through a silt fan which had formed at the tail of the embankments constructed in the previous year. Before the work was completed, a very heavy flood breached one of the embankments for 120 feet and also the railway line and was only closed after considerable labour six weeks later. As in the previous year, the embanked channel terminated in flat country, the water being left to find its own way to the Sittang River, but estimates have been sanctioned for extending the side banks another 8,000 feet, which will bring their terminal point to within three miles of the Panut creek to which it is proposed eventually to link up. There was much erosion near Myitkyo on the Sittang River, and the probability of the river cutting through the loop of the embankment at this point necessitated the construction of a retirement estimated to cost Rs. 20,031.

CHAP. IV.—PRODUCTION AND DISTRIBUTION.

Weather and Crops.

Character of the seasons.

90. The agricultural season of 1918-19 was, on the whole, an indifferent one. The early rainfall was almost everywhere timely and ample, and in places was even excessive. The middle rains were, however, scanty, outside the wet zone crops withered, and heavy showers in November came too late to do much good. In the dry zone, conditions varied from district to district, but the season was generally unfavourable and late inundations from the Chindwin and Irrawaddy Rivers damaged paddy, though they benefited riverine and island crops. In Lower Burma also much damage was caused by floods in the Pegu and Irrawaddy Divisions and in the Thatôn and Amherst Districts of the Tenasserim Division.

Outturns and prices.

91. Owing to the unfavourable character of the season, the total estimated outturn of unhusked rice for the Province declined from 7,144,933 to 5,973,295 tons, or a decrease of 16 per cent. The final estimate of the surplus available for export was 2·11 million tons as against 2·70 million tons in the previous year. As a result of the high prices obtained and consequent expansion in the area cultivated, the yield of cleaned cotton increased from 7,614 to 12,250 tons. Groundnuts and white beans both suffered from drought and the outturn of the former fell from 105,568 tons to 99,087 tons though the area cultivated was the same, while the outturn of small white beans remained stationary at approximately 142,000 tons, in spite of an expansion of 80,156 acres in the area under this crop. The yield of wheat increased further from 7,483 to 9,309 tons, but, owing to the attacks of the parasitic weed known as *pwin-byu-bin* (*Striga lutea*), the outturn of red millet decreased by 15,997 tons and that of white millet by 4,165 tons to 36,771 and 17,565 tons, respectively. Though the area under sessamum increased by 16 per cent., the outturn increased by 293 tons only to 81,483 tons. According to Customs returns, the quantity of rubber exported rose from 2,634,380 lbs. to 4,149,242 lbs.

During July 1918 the market in Rangoon for unhusked rice was steady at Rs. 92 to Rs. 105 per 100 baskets, weighing 46 lbs. each. It then rose gradually during August to Rs. 130, and more rapidly in September to between Rs. 140 and Rs. 170 according to quality, millers pressing for supplies and stock holders being disinclined to sell. Towards the end of October the market was easier at between Rs. 155 and Rs. 160 per 100 baskets and supplies were on a free scale, but prices hardened again in November to Rs. 180, owing to millers having to cover their sales to the military authorities. Towards the end of the month, however, prices dropped to Rs. 160 and Rs. 140 and eventually to Rs. 110 in December, with the approach of the new crop. Supplies began to arrive early in January and at the end of the month prices were about Rs. 127 per 100 baskets. With larger supplies, prices eased off slightly in the beginning of February, but hardened again, owing to speculators in the districts holding up supplies and at the end of the month the market was firm at between Rs. 125 and Rs. 130. During March and April prices rose gradually to Rs. 140, Rs. 150 and Rs. 155 per 100 baskets, but hardly any business was transacted, as the controlled price of rice did not permit of millers paying more than approximately Rs. 130 for paddy. Trade was thus at a standstill till the arrival of the Foodstuffs Commissioner from India, when it was decided to control paddy and a price of Rs. 150 was fixed as the maximum rate for 100 baskets delivered at Rangoon. The notification fixing this maximum rate was distributed in the districts in May, when an easier tendency became apparent and a certain quantity of rail paddy was sold at the controlled price, but purchases of boat paddy on a large scale still remained impossible. The course of prices at the minor ports of Akyab, Bassein and Moulmein did not differ materially from the rates at Rangoon. Owing to the heavy demand and the indifferent harvest, the prices of nearly all other foodstuffs increased considerably. The price of wheat, of large white beans and of red beans increased by 35 to 40 per cent., and there was a similar increase in the price of red and white millet, the supply of both being low and the demand as a substitute for rice being very large. The prices of maize, gram and sessamum all increased from 50 per cent. to nearly 100 per cent. The only exception to the

general rise was the small white bean, the price of which dropped heavily, owing to the restricted European demand. There was much speculation in cotton, and prices were considerably above normal. The season opened at about Rs. 80 per 100 viss and prices remained at that level for two months, but subsequently dropped to Rs. 65 and Rs. 45, with the result that middlemen who bought early in the season incurred considerable losses. Though the outturn of nearly all crops left much to be desired, yet cultivators received considerably more for their produce than in previous years and more money has come into their hands, more especially in Upper Burma.

Co-operation.

Adminstrative and General.

92. During the year the Thatôn District was added to the list of districts in which the co-operative movement has found a footing, and Agricultural Societies are now established in 26 of the 37 districts in the Province and in the Northern Shan States. It is particularly satisfactory that the extension of the movement to the Thatôn District owed nothing to official propaganda, and was entirely due to the initiative of local Karens, who invited a well-known Karen teacher from another district to come and organize their societies. Arrangements are in progress to extend operations to the Arakan Division, and four men from that division have been selected for training as Junior Assistant Registrars.

The superior administrative staff of the department remained unchanged, there being one Registrar for the Province, assisted by two Joint Registrars for Upper and Lower Burma, respectively. Working under the Joint Registrars there were seven Assistant Registrars, exclusive of a Superintendent of Training. The Local Government during the year sanctioned a scheme increasing the cadre of Junior Assistant Registrars to 32, of whom 5 will be concerned with administration and 27 with super-audit and propaganda. Unfortunately, the scheme for the direct recruitment of University graduates for employment as Junior Assistant Registrars was not altogether a success and failed to attract candidates in sufficient numbers.

The cost of the department in staff and contingencies rose from Rs. 2·46 lakhs to Rs. 2·56 lakhs, but the amount spent by societies in management and contingencies declined from Rs. 2·82 lakhs to Rs. 2·69 lakhs.

The number of societies of all kinds rose from 3,056 to 3,612, and the number of members from 73,702 to 88,860. Unions increased from 240 to 325, agricultural credit societies from 2,279 to 2,675, non-agricultural credit societies from 85 to 123 and cattle insurance societies from 379 to 386.

The increase in the number of agricultural credit societies was well distributed, and some increase took place in Lower Burma Districts, where growth has hitherto been slow. The other important features of the year's working were the establishment of a new District Central Bank at Prome, the continued growth in strength and resources of the Provincial Central Bank at Mandalay, the increase of Burmans' deposits in Urban Societies and District Central Banks, and the vitality shown by Urban Credit Societies. The working capital of all classes of societies rose from Rs. 1,84 lakhs to Rs. 2,18 lakhs, or, if the money lent by societies of one class to societies of another class be omitted, from Rs. 1,22 lakhs to Rs. 1,52 lakhs. No amendments of the Act or Rules were made, but two amendments of the Rules are under consideration, the one authorising the Registrar to rescind resolutions of societies outside the scope of their bye-laws, and the other to enable an arbitrators' award to be executed as a decree instead of being presented with *ad valorem* Court-fees as a regular suit. A considerable amount of work was done in drafting bye-laws for various societies requiring special bye-laws of their own, such as a co-operative saw-mill, a paddy sale society, a weaving society, an embankment society and a headmen's bank. District Conferences were again held in all districts in which co-operation is of importance.

Unions and Central Banks.

93. Guaranteeing Unions continued to work well, their main functions being the supervision of primary societies and the assessment of their credit. They also did most valuable propaganda work. The system under which a supervisor

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is appointed, controlled and paid for by a group of four or five adjacent Unions was most successful, and the post was much sought after. Unions showed discrimination in assessing the credit of their component primary societies, and the Registrar was able to accept their recommendations, except in rare instances. The only locality, where the system of guaranteeing Unions failed to spread, was the Irrawaddy Delta, where, owing to mutual distrust, neighbouring villages generally declined to combine to form a guaranteeing Union, and it seems probable a peculiar variety of co-operative credit organization will eventually be found necessary in this area.

The Upper Burma Central Bank in Mandalay, which finances agricultural credit societies directly in all districts in which District Central Banks do not exist, and which also finances District Central Banks, continued to be managed on sound conservative lines. Its share capital increased from Rs. 2·69 lakhs to Rs. 3·12 lakhs, fixed deposits increased from Rs. 46·53 lakhs to Rs. 53·88 lakhs, in spite of the attractions of the Second Indian War Loan and the rise in exchange on London, and the Bank's investments in Government paper at par value rose from Rs. 16·16 lakhs to Rs. 24·55 lakhs. During the year 321 new societies were affiliated to the Bank and no loss was incurred. Loans to societies increased from Rs. 38·49 lakhs to Rs. 45·59 lakhs, and all applications from Upper and Lower Burma were met. The profit for the year was Rs. 1·09 lakhs as against Rs. 1·08 lakhs in 1917-18, and a dividend of 5 per cent. together with a bonus of 4 per cent was paid. The Bank has hitherto not had much success in attracting deposits from natives of Burma and surplus funds deposited by societies have formed only a small proportion of its resources, but there are signs that this character of the Bank's finance is about to change, surplus funds are beginning to make their appearance in the case of District Banks and Urban Societies, and it will soon be possible for the Central Bank to begin to perform the functions of an apex Bank, that is to say, the balancing of surpluses and deficiencies. An important development was discussed during the year, namely the founding of a second co-operative bank in Rangoon, with the dual object of promoting Burmese commercial and industrial banking and of financing urban co-operative credit societies in Lower Burma, with which the Mandalay Bank has not hitherto had dealings. The District Central Banks at Pakôkku, Sagu and Pegu continued to serve the districts in which they are situated, and two further Banks at Prome and Moulmein were registered during the year. Negotiations are in progress for the establishment of similar institutions in the Shwebo and Lower Chindwin Districts.

Agricutural Credit Societies.

94. Agricultural Credit Societies increased not only in numbers and membership, but also in efficiency, the greatest progress taking place in those districts in which the co-operative movement was already well established. As in the previous year, societies were graded according to efficiency, and the classifications were in order of merit, A class 55, B class 383, C class 1,888 and D class 362. The corresponding figures for the previous year were 49, 266, 931 and 398, respectively. A sound knowledge of co-operative principles is insisted on before a society is registered, and in some districts a probationary period of one year is enforced before final registration is permitted. The proportion of repayments by members to societies rose by 2 per cent. to 21·8 per cent., but the percentage of repayments by societies to Central Banks fell slightly from 25·4 per cent. to 25·1 per cent., owing to the increased cost of living and cultivation. Unsatisfactory working was noticed in the case of societies in the Mandalay, Minbu and Yamêthin Districts, but notable increases took place in the Shwebo, Sagaing and Pakôkku Districts of Upper Burma and in the Prome, Tharrawaddy and Pegu Districts of Lower Burma. The total number of societies in liquidation rose from 111 to 139, of which 59 were placed under liquidation during the year. Progress in liquidating societies was slow, owing to difficulty experienced in securing competent liquidators, and only Rs. 19,092 principal and Rs. 10,627 interest were recovered for Central Banks, leaving Rs. 1,95,411 outstanding.

Colonization areas.

95. No new colonies were formed during the year, and this phase of co-operative development languished somewhat, owing to lack of officers to

supervise it. There was some failure to pay instalments of Government loans in the cases of the Kadônbaw and Namti colonies, and some disposition among the colonists to go behind one another's backs in the disposal of their crops. On the other hand, substantial progress was made by colonies established in the Namyin Valley and by the Hopin Union in the Myitkyina District. The breach of the embankment for the second year in succession prevented any actual colonization on the Yandoon Island in the Ma-ubin District, but a few societies were formed in villages on the river banks.

Other Societies.

96. One of the main features of the year was the great increase that has taken place in the numbers and membership of non-agricultural societies. Excluding purchase and sale societies, non-agricultural credit societies rose in number from 85 to 123, in membership from 8,699 to 13,536 and the amount advanced by them to individual borrowers increased from Rs. 11·92 lakhs to Rs. 17·38 lakhs. The development of Town Banks amongst traders and shop-keepers in Lower Burma is responsible for the greater part of this increase, and it has become clear that these Town Banks are satisfying a very real demand for credit by the industries and trades of the middle classes in towns. Societies of salary-earners continued to increase, especially in Rangoon, where the large societies in Government offices were admirably managed. Credit societies of artisans increased, more especially in Mandalay Town, and it is hoped to organize purchase of raw materials and sale of manufactured products for these societies. Their products are multifarious and include teak-wood boxes and furniture, Burmese shoes, paintings on satin and cane basket-making. An attempt to obtain a market in London for lacquer goods produced by members of credit societies at Pegu has not so far been successful.

Owing to the higher range of prices at the beginning of the year and the uncertain prospects of the market, there were few co-operative sales of crops, except in co-operative colonies. There were no dealings with the military or other Government departments during the year. Six societies for the co-operative working of fisheries were registered in the Tharrawaddy District, and the three societies that succeeded in obtaining leases had a fairly successful year. Some of the fuel societies registered in previous years failed to obtain contracts and dissolved. Cattle insurance societies did not display any great vitality, and there was a drop in membership. These societies have so far been formed only in the five districts of Kyaukse, Meiktila, Sagaing, Shwebo and Mandalay, which are ordinarily free from contagious disease, and it was thought that the present fixed premium of five per cent. was perhaps unduly high, in view of the comparatively slight risk incurred, and therefore tended to check the extension of societies. Government accordingly sanctioned the Registrar's proposals that, during the first three years of a Society's existence, the ordinary rate of premium should be nine pies in the rupee, or roughly five per cent., but that, if its experience and that of neighbouring societies justified the reduction, a reduced rate of six pies in the rupee might be levied at the end of this period. Subsequent triennial revisions of the rate of premium are to take place. It is, however, impossible to lay down any definite line of policy or to estimate the value of this form of co-operation until it is taken up in districts, where mortality from epidemic disease is normally heavy.

Horticulture.

Agri-Horticultural Societies.

97. The Agri-Horticultural Society of Burma with its headquarters and garden at Rangoon continued to be the only society of its kind in the Province. The membership declined from 217 to 211 and there was a loss on the year's working of Rs. 962 compared with a loss of Rs. 2,113 in the previous year. Receipts rose from Rs. 41,213 to Rs. 44,212, and expenditure, including Rs. 4,258 on account of depreciation, from Rs. 43,326 to Rs. 45,174. Sales of plants and flowers continued to increase steadily, and in the year of report amounted to Rs. 23,186, in spite of difficulty in obtaining seeds from England and in disposing of orchids to buyers in Europe. A successful Flower and Vegetable Show for

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School gardens was held during the year and the Council assisted the promoters by contributing money prizes. The Council Hall in the garden was occupied by a Museum of forest products, collected by the Forest Department of Government.

Forests.

Forest reserves, unclassed forests, settlement, demarcation, survey and working-plans.

98. The total area of reserved forests at the end of the year of report was 29,336 square miles, equivalent to a net increase of 220 square miles during the year. The area of new reserves finally notified was 188 square miles, recomputation caused a net addition of 40 square miles, and 8 square miles were disforested. The area of unclassed forest at the end of the year was estimated to be 116,829 square miles, including an area of 15,156 square miles reported as being without forest growth. There was a net increase of 98 square miles during the year; there was a gain owing to the addition of the Somra Hill Tract to the administered area of the Province, but this was partly counterbalanced by a loss due to reservation and the spread of cultivation. An area of 1,248 square miles was undergoing settlement at the beginning of the year and 844 square miles were taken in hand during the year. The area finally notified as reserved forest was 188 square miles and the area awaiting settlement is 1,835 square miles. The length of exterior boundaries demarcated rose from 204 to 292 miles and the cost of demarcation from Rs. 3,644 to Rs. 5,328. At the close of the year the total length of boundaries was 21,248 miles, of which 3,218 miles require no artificial marks and 152 miles still remain to be demarcated. A Special Forest Survey Party began work during the year and two ordinary Survey of India Parties were also employed. They surveyed 74 square miles of reserved forest on the 2-inch scale and traversed 295 miles of reserve boundary. Another party organized by the Commissioner of Settlements surveyed 88 square miles of tidal reserves in the Bassein-Myaungmya Forest Division. An area of 5,044 square miles of reserved forest still remains to be surveyed.

The revised working plan for the Yoma reserves in the Tharrawaddy District, covering an area of 315 square miles, was sanctioned during the year. The field-work of a plan dealing with 180 square miles in the Katha and Ruby Mines Districts was completed and the draft report is in the press. Owing to sylvicultural developments and to increased attention being paid to the extraction of timber other than teak, the whole question of working-plans is under reconsideration, both from the point of view of sylviculture as well as from that of exploitation.

Protection of forests.

99. The number of detected offences against the Forest laws fell from 5,000 to 4,600, of which 33 were injuries to the forests by fire, 3,249 unauthorised fellings, 238 cases of unauthorised grazing and 1,080 other offences. The number of cases taken into Court fell from 926 to 687 and the percentage of cases in which a conviction was obtained rose from 85·9 to 86·6. The number of cases compounded by Forest Officers fell from 4,056 to 3,589 and the amount of composition paid from Rs. 47,756 to Rs. 44,413. Fines for breach of contracts and agreements, or for excess extraction under licenses, again rose considerably from about Rs. 8,000 to Rs. 12,512. An outstanding feature was the number of thefts from the reserves in the delta of the Irrawaddy River and from the reserves in the plains of the Tharrawaddy District. In these areas an enormous demand exists, which cannot be adequately satisfied till administrative and controlling charges are made smaller.

The area protected from fire again fell from 1,750 square miles to 1,347 square miles, the percentage of successful protection being 92. The cost of protection rose from Rs. 44 to Rs. 48 per square mile, in consequence of the decrease in the area protected. The gradual decrease in the area under protection is due to the accepted fact that fire protection prevents germination of teak, and in moist forest is useful only to prevent waste of dormant teak seed by too early germination in areas shortly to be brought under concentrated regeneration. Of the whole area of reserved forests 77·5 per cent. was again closed to grazing

throughout the year, 21·8 was open to grazing, but not browsing, for the whole or part of the year, and the balance was open to all animals for part of the year. The number of cattle impounded for unauthorised grazing fell from 4,963 to 2,582. There were also some instances of damage by tame elephants in regeneration areas. Owing to the increase of plantations and other regeneration work, the damage done by wild elephants, pig and sambhur is becoming more serious than formerly and progress was made with the issue of Kheddah licenses and licensed guns. Similarly damage done to young trees by insects is more noticeable with the increase in concentrated regeneration and steps are being taken to experiment with species other than teak and to engage more officers for entomological research.

Improvement of forests.

100. The total expenditure on roads and buildings increased from Rs. 2·84 lakhs to Rs. 3·09 lakhs. One hundred and twenty-eight miles of new cart-road were made at a cost of Rs. 27,821 and 253 miles of new bridle-path at a cost of Rs. 41,219. The total expenditure on roads was almost the same as in the previous year, and will be greatly exceeded when labour can be imported and conditions generally become more normal. The attempt to use ticket-of-leave convict labour in Lower Burma was not a success, chiefly owing to the sickness of the convicts. Expenditure on the up-keep of 4,067 miles of existing roads and paths amounted to Rs. 74,938. Expenditure on new buildings, including rest-houses and accommodation for the staff rose from Rs. 66,540 to Rs. 84,313. Repairs to all buildings cost Rs. 58,338.

In view of the fact that fellings for the establishment of natural regeneration of valuable species did not as a rule lead to rapid and complete stocking, this system gave way to semi-artificial means of concentrated regeneration by combining natural reproduction in *taungyas* (hill-sides cleared for paddy cultivation) with planting and sowing. Extensive and valuable work in connection with the new system was carried out, more especially in the Pegu and Northern Circles, where satisfactory results were obtained both from the financial and sylvicultural point of view. Much information regarding the production and germination of seed, the sylvicultural requirements of important species and peculiarities in coppicing was also collected. Improvement fellings had to be somewhat reduced owing to lack of staff. The question of forming regular plantations of fast growing species to produce timber and fuel for domestic use in populous areas of Lower Burma and of *Cassia auriculata* for tannin in the dry zone of Upper Burma received attention.

Exploitation of timber.

101. After careful consideration and full discussion it was decided, in the case of the more accessible forests, to introduce a system of concentrated exploitation, both for teak and other timber, to be followed by complete regeneration by elastic methods varying with the requirements of each type of forest. Cognate questions, such as increase of staff, the organization and education of a labour force, the erection of Government saw-mills, the establishment of markets outside the Province and sylvicultural research, are under consideration.

The total number of teak trees girdled fell from 203,785 to 174,218. The decrease was entirely due to postponement of girdling at the request of lessees in Upper Burma, as the balances of girdled trees remaining unfelled in the forest was excessive, owing to reduced exploitation during the latter part of the war. The number of trees girdled in Lower Burma was somewhat above the normal, owing to the killing of a large number of small trees growing on culturable land. The total outturn of teak by departmental agency fell from 91,056 tons to 89,783 tons, but part of this decrease is only nominal, as last year's figures were swollen by a change in the system of delivery. Good progress was made with training works for passing logs over shallows in the streams and rivers of the Tharrawaddy District. There was also considerable activity in the departmental supply of timber other than teak for the Munitions Board, and the total output by Government agency including teak rose from 100,186 tons to 106,745 tons. Departmental sales of teak realized Rs. 32·67 lakhs and of other woods Rs. 2·17 lakhs, as compared with Rs. 27·27 lakhs, and Rs. 1·49 lakhs, respectively, in the previous year. The

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market price of teak in Rangoon rose considerably on the cessation of hostilities, but outside Rangoon the value of inferior logs sold in large quantities decreased. The quantity of teak supplied direct to the British Admiralty rose from 500 tons to 2,900 tons, and the conversion of another 1,300 tons in compliance with a further indent was completed by the end of the year. The Royal Indian Marine was supplied with approximately 300 tons of teak during the year, the Eastern Bengal State Railway purchased 1,500 tons, and 225 tons were sold to various Indian firms for shipbuilding purposes. The supply of packing cases for rubber was handed over to private enterprise. The outturn of teak by lessees was 68 per cent. of the whole outturn of teak for the Province and amounted to 221,680 tons, or 55,216 tons less than in the previous year. The decrease is due to certain firms keeping their outturn low, owing to want of freight to India, and the figures are abnormal. The floating season was, on the whole, an average one.

Teak logs extracted by lessees, but on which they did not wish to pay royalty, realized Rs. 1·90 lakhs, or Rs. 41 per ton, as compared with Rs. ·86 lakh, or Rs. 25 per ton last year. Owing to the reduced requirements of the Munitions Board, the quantity of timber extracted by licensees fell slightly from 398,741 tons to 391,679 tons. Their outturn of fuel, however, increased largely from 705,703 tons to 940,002 tons, chiefly owing to the continued scarcity of coal. For the same reason departmental sales of fuel, mainly to the Burma Railway Company, also rose from 52,982 tons to 239,409 tons. Insignificant quantities of timber and fuel were also extracted by grantees and right-holders, their combined extraction being less than 5 per cent. of the total outturn in the case of timber and less than 4 per cent. in the case of fuel.

The total provincial outturn of teak from forests of all kinds fell from 378,323 tons to 326,567 tons; of reserved timber (other than teak) rose from 101,216 tons to 109,559 tons; of unreserved timber fell from 349,332 tons to 342,795 tons; and of fuel rose from 808,503 tons to 1,236,599 tons.

Finance.

102. The financial results of the Forest administration are shewn in Chapter V of this Report in the section entitled "Revenue and Finance other than Imperial."

Mines and Quarries.

The Indian Mines Act.

103. The only districts to which the Indian Mines Act at present applies are the Mergui, Ruby Mines, Tavoy and Thatôn Districts, but a proposal is under consideration to extend the Act to the Northern Shan States in order to bring the mines of the Burma Mines Company at Namtu within its purview. In the Tavoy District, which is by far the most important from the mining point of view, the number of registered tin and wolfram mines fell from 140 to 102, owing to more careful classification and the exclusion of surface mines. Greater skill was shown in the exploitation of ores, housing and sanitary conditions improved, and the beneficial effects of the Act were increasingly felt. A preliminary geological map of the district was published during the year.

There are no Mining Advisory Boards constituted under section 9 of the Act, but the Tavoy Board, established by executive instructions in 1917, continued to do useful work. Besides advising on various technical matters of importance, it continued to interest itself in Mining Education, and a second series of lectures was delivered by various specialists under its auspices.

Mining employees in common with other sections of the population suffered severely from influenza and malaria; dysentery and lung affections were also prevalent. Sanitary conditions, however, improved, better designed coolie barracks were erected, and more attention was paid to the supply of pure drinking water and of proper latrine accommodation. Wages remained much the same as in the previous year, payment being made on the tribute system according to results. The tribute rate in the larger mines of the Tavoy District averaged Re. 1 per viss, while in the Mergui District it varied from Re. 1-9-0 to Re. 1-12-0 per viss. In the latter district daily wages were paid at the rates of 12 annas without food and 10 annas with food. The wages of skilled and semi-skilled employees, such as clerks, storekeepers, mechanics and supervisors, continued to

rule very high. In the Tavoy District mining development was somewhat hampered by paucity of labour. The shortage was to some extent met by the importation of Chinese, by the influx of Indians of every kind and by the introduction of Burmese convicts on ticket-of-leave.

The Chinese were the mainstay of the mine-owners; but, like the Indians, many of them leave the country once they have reached a certain standard of prosperity. The Burmese convicts proved more successful than was anticipated and on the whole did well. Women and children were nearly all employed on the surface, and their employment is due to the customary tributary system under which whole families share in the work of production. In the opinion of the Inspector of Mines the conditions of their employment were entirely free from objection. There were 3 serious accidents in the Ruby Mines, but the Company was in no way responsible. In the Tavoy District there were 47 accidents causing 28 deaths and 19 cases of serious injury. Of the 28 deaths, 3 were due to underground falls, 15 to surface falls, while 6 men were killed by falling trees, 2 were drowned and one man fell into an engine room. The dangers from underground mining are steadily decreasing, but surface operations, in soft ground are now carried on at deeper levels and are becoming more dangerous. In all the cases enquired into by the Inspector of Mines the management was exonerated, as the deaths were due to pure accident or carelessness. There were two prosecutions for breaches of the rules prohibiting the firing of shots by unauthorised persons.

New concessions.

104. During the calendar year 1918, the number of new applications for prospecting licenses dealt with was 669, of which 242 were granted, 190 refused and 237 withdrawn. The corresponding figures for the previous year were 528, 09, 150 and 169. The number of applications for renewal of prospecting leases dealt with was 185, of which 159 were granted, 13 refused and 13 withdrawn. The corresponding figures for the previous year were 194, 171, 12 and 11. The number of applications for mining leases dealt with was 8, of which 5 were granted, 3 refused and none withdrawn The figures for the previous year were 16, 12, 2 and 2. These figures illustrate the continued activity in prospecting and in mining in the Province, more especially in the Thatôn, Amherst, Tavoy and Mergui Districts and in the Southern Shan States. A remarkable increase is also noticeable in the Yamèthin District, where 91 new applications for prospecting licenses were dealt with, of which 34 were granted, 30 refused and 27 withdrawn as compared with only 3 applications dealt with in the previous year. Of the five mining leases, two were granted for all minerals except oil and three for mineral oil. At the end of the calendar year 346 applications for prospecting licenses and 14 for mining leases were pending, the corresponding figures for the previous year being 166 and 17, respectively.

Petroleum.

105. Petroleum was produced in the seven districts of Magwe, Minbu, Pakôkku, Upper Chindwin, Thayetmyo, Kyaukpyu and Akyab, or an increase of one district, the Upper Chindwin, as compared with the previous years. The quantity produced in the last four districts was, however, insignificant, and their combined output was less than 600,000 gallons, towards which the Upper Chindwin District contributed 473,800 gallons. The total output for the Province rose from 272·79 million gallons to 274·83 million gallons and its value from Rs. 1,58 lakhs to Rs. 1,62 lakhs. The yield from the Yenangyaung field in the Magwe District increased by over 26 million gallons to 204 million gallons, owing to increased activity on the part of the Burma Oil Company with the object of forestalling their rivals in reaching the deeper oil sands. The yield in the Minbu District also increased by over one million gallons to nearly five million gallons, but, owing to natural causes and to shortage of skilled labour, production from the Singu field in the Magwe District and from the Yenangyat field in the Pakôkku District fell by over 24 million gallons and nearly 2 million gallons to 61 million gallons and 4·74 million gallons, respectively. The number of men engaged in the winning of petroleum in the Magwe District, which is by far the most important centre of the industry, was 9,333, or a slight increase over the previous year's

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figure. Prospecting operations in certain portions of the Pakôkku District were continued, but without meeting with any appreciable success.

Wolfram.

106. The total output of wolfram fell from 4,529 tons to 4,443 tons, but its value rose from Rs. 91·71 lakhs to Rs. 1,06·98 lakhs. The great bulk of the ore was, as usual, obtained in the Tavoy District, which produced 3,636 tons as compared with 3,697 tons in the previous year. The output from the Thatôn District also fell slightly from 107 to 96 tons, and that from the Southern Shan States from 356 to 334 tons, while the Mergui District slightly increased its production from 368 to 377 tons. Wolfram mining employed 11,390 men, 644 women and 212 children as compared with 11,417 men, 720 women and 298 children in the previous year.

Rubies, Sapphires and Spinels.

107. The progressive decline in the output of rubies, sapphires and spinels from the mines in the Ruby Mines District continued during the year of report, and the total production amounted to only 164,115 carats, or little more than half of that of the year 1914. The output in the previous year was 198,200 carats worth Rs. 7·77 lakhs, while the value of this year's output was only Rs. 6·05 lakhs. Though the number of men employed at the mines rose from 1,245 to 1,300, the value of the finds was smaller and work was impeded by influenza. The amount of rubies produced was 101,637 carats worth Rs. 5·17 lakhs, of sapphires 34,949 carats worth Rs. ·84 lakh and of spinels 27,529 carats worth Rs. ·04 lakh.

Other minerals.

108. Argentiferous lead ores are found almost exclusively in the mines worked by the Burma Mines Company at Bawdwin in the Northern Shan States and the output of both silver and lead increased considerably. The yield of lead rose from 16,963 tons valued at Rs. 59·62 lakhs to 18,995 tons worth Rs. 67·57 lakhs, and that of silver from 1,580,557 ounces valued at Rs. 35·56 lakhs to 1,970,614 ounces worth Rs. 44·34 lakhs.

The price of tin increased and there was much activity in tin mining during the year. The output of block tin in the Mergui District fell from 141 to 101 tons, though its value increased from Rs. 4·19 lakhs to Rs. 4·22 lakhs. On the other hand, the quantity of tin ore extracted rose from 623 tons to 733 tons and its value increased from Rs. 10·03 lakhs to Rs. 13·61 lakhs. The mine at Mawchi in the State of Bawlakè in the Southern Shan States yielded 334 tons, or slightly less than the previous year, but there were substantial increases in both the Amherst and Tavoy Districts.

There was a small decrease from 28,763 tons to 26,680 tons in the quantity of iron ore produced and its value fell from Rs. 18,958 to Rs. 13,982. The output in the Mandalay District was only 3,367 tons against 18,850 tons in 1917, the decrease being due to a scarcity of carts and labour. On the other hand, the output in the Northern Shan States rose from 9,913 tons to 23,313 tons, owing to increased activity on the part of the Burma Mines Company.

The output of amber fell from 59 cwts. to 3 cwts, owing to absence of demand and to the Laisai Mines in unadministered territory not being worked in the year of report.

There was a decrease from 3,961 cwts. to 3,203 cwts. in the quantity of jadeite produced and its value also fell from Rs. 4·34 lakhs to Rs. 3·78 lakhs. The decrease in output is partly due to the absence of any exceptionally good finds and partly to the increased difficulty of extraction. The pits have now reached a considerable depth, and, owing to faulty timbering in the underground galleries, frequent collapses occur.

The Burma Gold Dredging Company worked for only three months of the year of report and then went into liquidation. Consequently, the quantity of gold produced fell from 1,079 ounces to 171 ounces, and that of platinum, which is found in association with the gold deposits worked by the same Company in the Myitkyina District, also declined from 3·79 ounces to ·31 ounce.

No bismuth, antimony or zinc ore were extracted during the year of report, though small quantities of the two first mentioned minerals were produced in the previous year. There has been no production of zinc since the year 1916.

There was no output of molybdenite from the mines in the Yamèthin District and a decreased output from the mines in the Tavoy District, with the result that the total production of this mineral fell from 33 cwts. valued at Rs. 11,452 to 3 cwts. worth Rs. 825.

Quarry stones and clay.

109. The output of granite was 182,892 tons valued at Rs. 2·34 lakhs as compared with 255,290 tons worth Rs. 2·81 lakhs in 1917. Production in the Thatôn District decreased by 106,614 tons, owing to smaller demands made by the Public Works Department and owing to trade depression. The quantity of laterite extracted also declined by nearly 125,000 tons from last year's figure of 286,924 tons, the decrease being due to restricted expenditure by public bodies and by Government on roads. The output of other miscellaneous varieties of stone, including road metal, sandstone, schist, soling stone and shingle required for roads and buildings, rose from 265,212 tons to 353,593 tons. There were increases of 16,000 tons of sandstone in the Amherst District, of 83,147 tons of stone in the Thatôn District, and of 28,475 tons of ballast stone in the Northern Shan States, and decreases of 32,000 tons of schist and shingle in the Tavoy District and of 28,000 tons of sandstone in the Meiktila District. The quantity of limestone produced was 208,394 tons, or much the same as in the previous year. The number of persons engaged in quarries fell from 4,629 to 3,948. The total provincial output of all kinds of stone required for roads and buildings fell slightly from approximately 1·1 million tons to 1 million tons, but its value rose slightly from Rs. 10·71 lakhs to Rs. 10·79 lakhs.

The output of clay for pottery more than doubled during the year, owing to the inclusion for the first time of figures for the Sandoway and Upper Chindwin Districts. The nominal output was returned as 26,271 tons, but no great reliance can be placed on these figures, as the clay is used principally in village industries and no accurate records are kept.

Revenue frrom mines and quarries.

110. The receipts from fees, rents and royalties on petroleum, rubies, jade and amber fell from Rs. 36·95 lakhs to Rs. 34·82 lakhs. The decrease is entirely due to the accidental circumstance that a sum of Rs. 3·26 lakhs due from oil companies in the Magwe District was received too late for incorporation in the accounts of the year of report. In the Thayetmyo District there was an increase of Rs. 10,106 and water difficulties in the Minhla field in this district are said to have been overcome. There was a reduction of Rs. 24,328 in the Pakôkku District, owing to the decreased yield of the Yenangyat oilfields. The main feature of the oil-winning industry has been the further exploitation of the deep sands of the Bemè Reserve in the Yenangyaung field of the Magwe District. Royalty on oil was collected for the first time in the Upper Chindwin District and amounted to Rs. 11,908. There was considerable activity in this district; a pipe-line approximately 30 miles in length and three tanks with a total capacity of over 1½ million gallons were completed during the year.

In the Myitkyina District the revenue derived from fees on licenses to collect royalty on jadestone remained practically the same; namely Rs. ·95 lakh. Royalties in the Ruby Mines District increased from Rs. 2·44 lakhs to Rs. 3·27 lakhs, mainly owing to a rush of miners to two localities, where sapphires of high value were found. Receipts from fees, rents and royalties on other minerals rose from Rs. 3·66 lakhs to the record figure of Rs. 4·40 lakhs. The two tin and wolfram producing districts of Tavoy and Mergui both showed large increases and accounted for Rs. 3·60 lakhs of the total revenue received under this head. There was an increase of Rs. 5,000 in the Yamèthin District, owing to numerous applications being made for licenses to prospect for wolfram. The wolfram-mining industry, however, received a severe set-back when the Munitions Board in England after the conclusion of the armistice withdrew its undertaking to pay a fixed price per unit. The Home Government have called for estimates and are paying compensation for the loss caused to wolfram miners by the withdrawal of this guarantee.

The rent received from the steatite mines at Sidoktaya in the Minbu District increased further by Rs. 1,502.

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Manufactures.

Principal industries.

111. The great bulk of the indigenous population is agricultural, and the important manufacturing and transport industries derive their supplies of labour to a very large extent from the immigrant Indian population. No new industries were established during the year, and the principal existing industries continued to be rice-millling, saw-milling, petroleum-refining and the transport industries. Of these, rice-milling was by far the most important and accounted for more than half the number of registered factories and the four industries between them claimed more than 80 per cent. of the total number of operatives employed. During the year the Provincial Art Officer made a detailed investigation of the general conditions under which the village industries of lacquer-making, pottery and mat-weaving are carried on, and made certain proposals for their encouragement and improvement. An interesting result of the investigations was the rediscovery of the lost art of producing red-figured black pottery similar to the ancient Grecian black pottery. Other industries, such as cigar-making, umbrella manufacture and domestic weaving, presented no unusual features, but there was some revival of the boat-building industry in the Pakôkku District.

Factories.

112. The total number of factories on the register at the end of the year was 549, or an increase of 13 as compared with the year 1917, but 37 of these registered factories were closed throughout the year. Twenty-six new factories were brought on the register, namely one tannery, one engineering works, one oil mill, two chemical works, one petroleum refinery, one foundry and dockyard, fourteen rice-mills and five saw-mills. The registration of thirteen factories was cancelled, of which eight were rice-mills, three were saw mills, one was a printing press and one a tile factory. Five rice-mills were burnt down during the year. The average daily number of persons employed in factories rose from 68,435, of whom 4,845 were women, to 70,918, of whom 5,131 were women. The number of factories allowing an interval after six hours' work rose from 241 to 245; those exempted under Part C of Schedule I of the Act decreased by 2 to 239, two factories were worked on a system of shifts and the rest made other arrangements. There were no great changes in the rates of wages, but labour was very difficult to get in the cotton-ginning districts, partly owing to the high prices received by cultivators for their cotton and partly owing to plague which made the usual hands unwilling to come into the large towns. The year was generally an unhealthy one, owing to the influenza epidemic, on account of which some mills had to shut down entirely for a few days, but the health of the operatives was certainly no worse, and was possibly better, than that of persons otherwise employed in the vicinity. Though plague interfered with the supply of labour in the cotton districts, there was not much actual mortality amongst the operatives.

The fencing of machinery improved, but continual vigilance is necessary to keep up the standard. It is frequently allowed to become dilapidated and is only replaced when fresh orders to do so are issued. The total number of accidents reported during the year again fell from 332, of which 16 were fatal, 77 serious and 239 minor, to 294, of which 20 were fatal, 91 serious and 183 minor. Of the 20 fatal accidents, three were due to the collapse of a brick wall, one to the collapse of the earth-work of a tank, three to falls of wax bags, one to an attack by a *must* mill elephant, two to falls and two to throw-backs of pieces of timber from circular saws. The brick wall that collapsed was that of a paddy godown. A Committee was formed to enquire into the strength and design of such structures and is at present considering the question. The number of persons prosecuted for breaches of the Factories Act rose from 7 to 11, of whom 10 were convicted, one case being dropped owing to the death of the accused. The prosecutions were mainly for not keeping mill premises clean and for failure to fence engine flywheels securely. Of the 512 factories actually working, 284, including all the more important factories, were visited by the Inspector, and a certain number of others that were not visited by the Inspector, were inspected by District Magistrates. The housing of operatives was, on the whole, satisfactory, and mills were kept as clean as can reasonably be expected. Improvements in the

ventilation of rice-mills are required, but had to remain in abeyance, owing to the difficulty in obtaining material from England. No overcrowding was noticed in the coolie lines of factories, but it was found necessary to prosecute the managers of three rice-mills for keeping their premises in an insanitary condition.

Trade.

Maritime trade: total value and revenue.

113. Owing to the economic disturbance and the general disorganization of industry and shipping caused by the war, any comparison of the value of the trade of the Province during the year of report with that of previous years is of comparatively little value. It is only possible to say that, though the trade of the Province decreased substantially in volume, it increased in value from Rs. 58,63 lakhs to Rs. 74,27 lakhs, owing to the much higher level of prices. The rise in prices was much more marked in the case of imports than in that of exports. If Rs. 100 be taken as the price of eleven representative imported articles during the three years ending 1900-01 and if due allowance is made for the relative importance of the selected articles, the figure for the year of report would be 276, or 24 per cent. in excess of that of 1917-18. If the same comparison be made in the case of ten representative exports, the index figure would be only 36, as compared with 123 in the previous year. Cotton twist and yarn, grey cotton piece-goods, white cotton piece-goods, woollen piece-goods, iron and steel and soap, with index figures of 404, 489, 433, 387, 379 and 372, respectively, show the greatest appreciation amongst imported staples, but all rose in price during the year. Raw cotton, raw hides, pig lead and teak wood, with index figures of 362, 232, 276 and 181, respectively, are the only staple exports exhibiting an appreciation at all comparable with that of imports, and in the case of the two last-mentioned articles the index figure even declined slightly during the year of report.

Other main features of the year were the large purchases of rice and beans made on behalf of the Royal Commission on Wheat Supplies, the introduction of a food control in India, in which Burma rice played an important part, and the peculiar circumstances of the cotton piece-goods market, in which the anomalous position arose of the retail price of goods being actually less than their replacement value either in the United Kingdom or India. Tonnage was less scarce than in the previous year and many restrictions imposed on account of the war on import and export trade were removed after the signing of the armistice. Excluding Government stores, the total value of private trade increased by 27 per cent from Rs. 57,16 lakhs to Rs. 72,74 lakhs, the relative proportions of foreign, Indian and interportal trade being 49, 46 and 5 per cent., respectively. Private trade with foreign ports increased in value from Rs. 30,60 lakhs to Rs. 35,56 lakhs, with Indian ports from Rs. 23,40 lakhs to Rs. 33,54 lakhs, and between Provincial ports from Rs. 3,16 lakhs to Rs. 3,64 lakhs. In the foreign import trade, a prominent feature was an increase of roughly 76 per cent. in the value of importations from Japan, these amounting during the year of report to Rs. 2,41 lakhs, or about 22 per cent. of the total private foreign imports. The value of imports from Hongkong, Egypt and the Straits Settlements also increased, while that of imports from the United Kingdom, the United States, Holland, Spain and Java decreased. The total value of exports, excluding re-exports, increased by roughtly 20 per cent., mainly owing to larger exports of rice to Europe on behalf of the Royal Commission, and to Japan, and of raw cotton to the United Kingdom. The value of imports and exports of private merchandise from Indian ports advanced by 54 and 36 per cent., respectively, and there was an increase of 15 per cent. in the value of interportal private trade. The value of Government stores in the foreign trade declined by Rs. 16·78 lakhs to Rs. 8·84 lakhs, and in the coasting trade by Rs. ·55 lakh to Rs. 13·90 lakhs, but in the Indian trade it rose by Rs. 23 lakhs to Rs. 1,30 lakhs.

The total gross customs duty collected increased by 10 per cent. from Rs. 1,79 lakhs to Rs. 1,97 lakhs, and the net duty from Rs. 1,76 lakhs to Rs. 1,91 lakhs. Import duty, excluding duty on salt, showed a general increase of 12 per cent., owing to the enhancement of values, and rose from Rs. 86 lakhs to Rs. 96 lakhs. Salt revenue declined by 5 per cent. from Rs. 15·44 lakhs to Rs. 14·70

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lakhs. Export duty, owing to large shipments to Europe, Java and the Far East, increased by 11 per cent. from Rs. 78 lakhs to Rs. 87 lakhs. The gross duty realized at Rangoon, which represents 89 per cent. of the total collections in the Province, exceeded that realized in 1917-18 by 8 per cent., and the net revenue increased by Rs. 10·66 lakhs, or 7 per cent., to Rs. 171·04 lakhs. At the six subordinate ports of Bassein, Akyab, Moulmein, Tavoy, Mergui and Victoria Point the gross revenue collections increased from Rs. 15·81 lakhs to Rs. 21·09 lakhs, or 34 per cent., owing to a substantial rise in collections of export duty, which included Rs. 11·36 lakhs and Rs. 1·37 lakhs collected at Rangoon on rice shipped at Bassein and Akyab, respectively. The net revenue collected at these six subordinate ports rose from Rs. 14·67 lakhs to Rs. 19·64 lakhs. The increase was shared by all ports, except Tavoy, which showed an insignificant decrease of Rs. ·03 lakh.

Rangoon trade; total figures.

114. The principal commodities imported into Rangoon from foreign countries during the year were in order of importance: cotton manufactures (Rs. 2,85 lakhs), metals (Rs. 1,53 lakhs), sugar (Rs. 56 lakhs), silk (Rs. 46 lakhs), matches (Rs. 35 lakhs), machinery (Rs. 31 lakhs), hardware (Rs. 29 lakhs), liquors (Rs. 28 lakhs), tobacco (Rs. 27 lakhs), provisions (Rs. 22 lakhs) and paper (Rs. 21 lakhs). These eleven commodities formed 70 per cent. of the total import trade with foreign countries, and no other article was of sufficient importance to form 2 per cent. of the trade. A comparison with last year's figures shows that metals increased in value from Rs. 1,02 lakhs to Rs. 1,53 lakhs, that matches have risen from the eleventh to the fifth place, and that paper has replaced soap in the list; but otherwise there are no important changes. The total value of all goods imported into Rangoon from foreign countries rose slightly from Rs. 9,75 lakhs to Rs. 10,48 lakhs as compared with an average of Rs. 12,30 lakhs for the five years ending 1914-15. The goods most largely imported from India were in order of importance: manufactured cotton (Rs. 3,01 lakhs), manufactured jute (Rs. 2,99 lakhs), cotton twist and yarn (Rs. 1,81 lakhs), spices (Rs. 70 lakhs), grain and pulse (Rs. 68 lakhs), provisions (Rs. 61 lakhs), coal (Rs. 61 lakhs), oils (Rs. 46 lakhs), tobacco (Rs. 42 lakhs) and fish (Rs. 30 lakhs), and these articles formed 83 per cent. of the total imports from India. As compared with the previous year, the total value of Indian imports rose from Rs. 9,28 lakhs to Rs. 14,03 lakhs, mainly owing to the value of each of the three most extensively imported articles, namely manufactured cotton, manufactured jute and cotton yarn, having approximately doubled during the year.

The principal goods exported from Rangoon to foreign countries were in order of importance: husked and unhusked rice (Rs. 11,93 lakhs), pulse, flour and grain other than rice (Rs. 1,84 lakhs), raw cotton (Rs. 1,61 lakhs), paraffin-wax (Rs. 1,05 lakhs), raw hides and skins (Rs. 62 lakhs), wood and timber (Rs. 58 lakhs) and pig lead (Rs. 43 lakhs). No other commodity exported reached a proportion of 2 per cent. of the total export trade with foreign countries. The main difference from the previous year was the greatly increased importance of the exports of raw cotton, raw hides and wood and timber, all of which approximately doubled in value in the year of report. The principal articles in the export trade with India were: husked and unhusked rice (Rs. 7,31 lakhs), mineral oils excluding paraffin-wax (Rs. 5,60 lakhs), wood including manufactured wood (Rs. 1,01 lakhs), raw cotton (Rs. 72 lakhs), metals (Rs. 49 lakhs) and grain and pulse other than rice (Rs. 38 lakhs). As compared with the previous year the principal change is that rice has resumed the first place in the list and has recovered from last year's abnormally low figure. The total value of all goods exported from Rangoon to foreign countries rose from Rs. 16,82 lakhs to 20,01 lakhs as compared with an average of Rs. 17,73 lakhs for the five years ending 1914-15. The value of exports to India also rose from Rs. 11,86 lakhs to Rs. 17,31 lakhs.

The share of Rangoon in the total foreign seaborne trade of the Province fell from 87 per cent. to 86; but in the Indian trade rose from 90 to 93; and in the interportal trade from 41 to 42.

115. The total value of cotton goods imported into Rangoon from India and foreign countries rose from Rs. 5,60 lakhs to Rs. 7,67 lakhs, or an increase of 31 per cent., and this class of article represented 30 per cent. of the aggregate value of private merchandise imported into the Province. Foreign imports of twist and yarn mostly came from the United Kingdom and amounted to 758,611 lbs., valued at Rs. 19 lakhs, or an increase of 40 per cent. in volume and 98 per cent. in value. Indian twist and yarn also improved by 19 per cent. in quantity and 95 per cent. in value. The state of the market in cotton piece-goods was abnormal, the Province was over-stocked, and though prices were high, they were yet less than those asked by manufacturers. This anomalous position led to the entry into the market of speculators, who bought largely, but were unable to hold their purchases, with the result that local prices fell considerably, to the relief of markets in the districts. Foreign piece-goods declined in quantity from 64 million to 41 million yards, and also in value, but to a much smaller extent, from Rs. 2,55 lakhs to Rs. 2,34 lakhs The principal decrease was in goods supplied by the United Kingdom, while imports from Japan increased considerably. Indian piece-goods increased from 51 million to 63 million yards valued at Rs. 2,88 lakhs, equivalent to an increase of 24 per cent in volume and 81 per cent. in value. Imports of hosiery rose from Rs. 7 46 lakhs to Rs. 2·12 lakhs, of which Japan claimed Rs 9 10 lakhs and the United Kingdom Rs. 2·15 lakhs. Sewing thread decreased slightly in quantity, but rose in value by Rs. 1·09 lakhs to Rs. 9·96 lakhs. There was a substantial decline in the importation of blankets, the value falling by Rs. 3·16 lakhs to Rs. ·86 lakh.

Though trade in silk was less in volume than in the previous year, its value increased by 17 per cent., from Rs. 39·41 lakhs to Rs. 46·05 lakhs. The quantity of raw silk imported fell by 17 per cent to 49,733 lbs., but its value rose from Rs. 3·49 lakhs to Rs. 4·58 lakhs. China and the Straits Settlements contributed more, but Siam much less. Goods made of silk, mixed with other materials, came mainly from the United Kingdom, and increased slightly, both in quantity and in value. Pure silk piece-goods fell by 15 per cent. in quantity to 3·85 million yards, but increased by 15 per cent. in value from Rs. 34·43 lakhs to Rs. 39·54 lakhs. Japan's share in this particular trade represented 93 per cent. of the total value.

Imports of woollen goods increased in value from Rs. 11·29 lakhs to Rs. 15·32 lakhs, mainly owing to increased arrivals of piece-goods, yarn and knitting wool. The United Kingdom's share of this trade was Rs. 11·31 lakhs as compared with Rs. 9·87 lakhs in 1917-18. Apparel, excluding hosiery, rose in value by 42 per cent. to Rs. 13·19 lakhs, of which the United Kingdom contributed Rs. 8·17 lakhs and Japan Rs. 3·60 lakhs. There was a slight increase in the value of haberdashery and millinery from Rs 7·82 lakhs to Rs. 10·75 lakhs; the United Kingdom and Japan being again the chief sources of supply.

Imports of boots and shoes dropped to 101,172 pairs valued at Rs. 3·60 lakhs, equivalent to a decrease of 48 per cent. in quantity and 37 per cent. in value. Restricted arrivals from the United Kingdom, which is the main source of supply, accounted for the fall. In this trade also Japan made progress and sent 28,137 pairs worth Rs. ·28 lakh as compared with 20,004 pairs worth Rs. ·13 lakh in the previous year.

The total imports of metals and ores increased by 17 per cent. in quantity to 21,453 tons, and by 50 per cent. in value to Rs 1,53 lakhs. The increase is mainly due to larger arrivals and enhanced values of iron sheets, plates, pipes and tubes from the United Kingdom. Imports of copper and tin improved, but those of zinc or spelter declined.

The value of the imports of hardware increased by 6 per cent. to Rs. 29·13 lakhs. Implements and tools came mainly from the United Kingdom, and showed an increase of Rs. 2·47 lakhs, or 58 per cent. in value. There were also slight increases in enamelled ironware from Japan, and in lamps from the United States. Machinery showed no change in value, and imports of railway plant and rolling stock declined further.

Provisions and oilman's stores fell by 20 per cent. in value from Rs. 26·98 lakhs to Rs. 21·58 lakhs, which is the lowest figure on record. The decline

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was due to restricted importations from the United States and the United Kingdom, whose supplies were worth Rs. 1·71 lakhs and Rs. 5·81 lakhs as compared with Rs. 6·64 lakhs and Rs. 8·06 lakhs, respectively, in the preceding year.

Imports of fish, excluding canned fish, decreased in quantity, but increased in value from Rs. 41·91 lakhs to Rs. 52·03 lakhs. Foreign imports, mainly dry salted fish from the Straits Settlements, fell by 7 per cent. in volume, but rose by 10 per cent. in value, and the coasting trade also showed a decrease of 10 per cent. in quantity and an increase of 28 per cent. in value.

Imports of salt rose by 40 per cent. in volume to 33,976 tons and by 23 per cent. in value to Rs. 18·70 lakhs. Shipping conditions favoured the importation of Port Said Salt, of which there were eight consignments aggregating 20,790 tons as against none in the previous year. On the other hand, a slightly smaller supply was received, both from England and Aden, and no Spanish salt whatever was imported as against 10,499 tons in 1917-18.

The balance in bond at the end of the year was 12,960 tons as compared with 23,58 tons at the end of the previous year, the decline being due to the reluctance of dealers to hold large stocks, with more regular supplies and cheaper freights in prospect. At the commencement of the year, the prices of English, Spanish, Aden and Port Said salt were Rs. 161, Rs. 157, Rs. 154 and Rs. 152 per 1,000 viss (3,600 lbs.) and at the end Rs. 147, Rs. 158, Rs. 145 and Rs. 132, respectively. Imports of Burma-made salt into Rangoon increased substantially to 12,278 tons or 6,976 tons more than in 1917-18. The year opened with prices varying between Rs 110 and Rs. 130, and after a rise to Rs. 150 in December, it closed at between Rs. 115 and Rs. 125 per 1,000 viss.

The total value of the imports of sugar declined by 10 per cent. to Rs. 55·65 lakhs, but increased by 2 per cent. in quantity to 403,027 cwts. Imports from Java fell considerably, but this was more than counterbalanced by larger supplies from the Straits Settlements. No sugar was received from Japan and very little from Hongkong. Imported liquors shewed a further decline of 27 per cent. in quantity, but the value rose by 9 per cent. to Rs. 28·45 lakhs. Ale, beer and porter again fell by 40 per cent. in volume and 20 per cent. in value, the decrease being shared between the United Kingdom and Japan. The quantity of spirits imported remained approximately the same at 147,000 gallons, but their value rose by 25 per cent to Rs. 20·40 lakhs. Increased imports of brandy from France and the United Kingdom and of "shamshoo" from China and Hongkong were counterbalanced by decreases in other varieties. The imports of foreign wine were insignificant and decreased both in quantity and value. The total quantity of all kinds of liquor imported was 330,867 gallons, or roughly only one-third of the imports of the year 1914-15.

The combined foreign and coasting imports of tobacco fell by 18 per cent. in volume and by 8 per cent. in value. Foreign imports of tobacco, manufactured and unmanufactured, declined by Rs. 2·51 lakhs to Rs. 27·50 lakhs, but the value of coasting imports of unmanufactured tobacco rose slightly by Rs. ·25 lakh to Rs. 37·09 lakhs, though the quantity decreased by nearly 3 million pounds to approximately 13 million pounds. Cigarettes from foreign countries fell in value by Rs. 2 68 lakhs to Rs 25·89 lakhs and those of Indian manufacture by Rs. ·34 lakh to Rs. 2·82 lakhs.

There were practically no importation of fuel oil or kerosene and there was a marked decrease under this head of 86 per cent. in quantity and 55 per cent. in value to 303 643 gallons valued at Rs. 4·70 lakhs. The value of imported motor cars and motor cycles fell by 72 per cent. to Rs. 2·18 lakhs, owing to the issue of orders prohibiting their importation.

Owing to larger supplies of explosives from the United Kingdom the value of the imports of arms, ammunition and military stores increased by Rs. 3·48 lakhs to Rs 6·11 lakhs. The number of imported firearms dropped from 922 to 590, of which the United States supplied 395 and the United Kingdom 150.

Imports of foreign coal increased substantially from 7,095 tons to 12,362 tons, the bulk of which was supplied by the United Kingdom, Japan and New South Wales. Arrivals of Indian coal on the other hand dropped further by 36,808 tons to 174,798 tons.

Matches, principally from Japan, rose from 1·6 million gross of boxes valued at Rs. 21·76 lakhs to 2·1 million gross of boxes valued at Rs. 34·74 lakhs. Paper and pasteboard advanced by Rs. 6·98 lakhs to Rs. 21·48 lakhs, while soap and parts of ships declined by Rs. 10·74 lakhs and Rs. 4·48 lakhs to Rs. 14·03 lakhs and Rs. 17·07 lakhs, respectively. CHAP. IV.—PRODUCTION AND DISTRIBUTION.

116. The combined exports of husked and unhusked rice from all the ports in Burma (excluding interportal trade) amounted to 2,487,171 tons valued at Rs. 24,14 lakhs as compared with 2,058,631 tons valued at Rs. 18,53 lakhs in the previous year. Exports to foreign countries increased from 1,513,359 tons to 1,642,067 tons in quantity and from Rs. 13,53 lakhs to Rs. 16,42 lakhs in value. Shipments to the United Kingdom fell from 522,815 tons to 261,167 tons, but there were large increases in the amounts exported to Japan, France and the Straits Settlements. Exports to India also increased largely from 545,272 tons valued at Rs. 5,00 lakhs to 845,104 tons worth Rs. 8,52 lakhs. Exports of rice.

The main feature of the year of report was the purchase of rice for Europe on account of the Royal Commission on Wheat Supplies, no exports to Europe being permitted except on this account. Owing to scarcity of tonnage and large accumulations of stocks, the market during the month of April 1918 was somewhat lifeless, with the quality of rice known as Big Mills specials quoted at Rs. 200 to Rs. 202-8-0 per 100 baskets of 75 lbs. each, and paddy in the vicinity of Rs. 90 per 100 baskets of 46 lbs. each. It remained quiet till about the middle of May, when there was a certain amount of activity, due to enquiries from Calcutta and rumours of the re-entry of Java into the market. July found the market firmer, and the price of rice rose gradually to Rs. 243-8-0 at the beginning of August and to Rs. 273-8-0 about the end of that month, owing to the opening of the Java and Japan markets. The price rose further to Rs. 385 in the middle of September and reached Rs. 415, where it remained until November, when it declined to Rs. 343, owing to restrictions on exports. It then became known that there would be a shortage in the Indian markets and that a Food Controller for India would be appointed. Uncertainty as to the nature of the official action likely to be taken caused speculators to become nervous and the market ruled quiet in December. The policy adopted by the Food Controller was to fix a maximum export price for the new crop on a basis of Rs. 335 for the quality of rice known as Big Mills Specials and to ration the various countries, the bulk of the crop being reserved to meet the strong Indian demand, due both to the failure of the monsoon in India, and to the fact that Indian stocks had been depleted to provide food for soldiers engaged in the war. The market price for new crop rice at the end of January was between Rs. 317 and Rs. 320, but in February prices became easier and sales were freely made to Indian shippers at Rs. 307-8-0 to Rs. 310. In March the market hardened, and at the end of the month, prices were approaching the maximum export prices fixed by the Food Controller.

Exports of rice bran recovered somewhat and rose from 22,115 tons to 38,511 tons, but were still only a quarter of the normal amount, and the average price declined further from Rs. 13 to Rs. 8 per ton.

117. Exports of teak from Rangoon decreased slightly in quantity from 105,143 cubic tons (each of 50 cubic feet) to 104,911 cubic tons, but increased slightly in value from Rs. 1,46 lakhs to Rs. 1,56 lakhs. Increased quantities were exported to the United Kingdom and Ceylon, but only 323 cubic tons went to the United States as against 4,898 cubic tons in the previous year. Shipments to India declined by 15 per cent., both in quantity and in value, owing to insufficiency of freight space. No teak whatever was exported from Moulmein to foreign countries and shipments to India also fell further from 23,479 cubic tons to 11,263 cubic tons. Exports of other woods from the Province to foreign countries and India also fell from 11,672 cubic tons valued at Rs. 8·48 lakhs, to 4,331 cubic tons, worth Rs. 3·45 lakhs. Exports of mineral oil were the highest ever recorded and increased from 138 million gallons, valued at Rs. 4,74 lakhs, to 160 million gallons, worth Rs. 5,92 lakhs. Exports of kerosene to foreign countries Exports of other commodities.

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were, as usual, comparatively unimportant, but keen demand in India led to shipments to that country being the largest yet known. Foreign exports of benzene, benzol, petrol and other motor spirit increased by 19 per cent. in volume and 18 per cent. in value, but exports of petrol to India fell. Exports of other kinds of mineral oil, both to foreign countries and to India, also increased considerably.

The export trade in paraffin-wax was influenced by the comparative abundance or scarcity of tonnage available to different countries, and though there was practically no alteration in the volume of the exports to foreign countries, amounting to 463,116 cwts., valued at Rs. 1,05 lakhs, their distribution between the different countries varied considerably from that of the previous year. Exports to the United Kingdom and South Africa increased, whereas those to the United States, Japan, Australia and Egypt declined. Exports to India advanced by 50 per cent. in volume to 27,014 cwts. and by 56 per cent. in value to Rs. 6·39 lakhs. The increase is attributable to indirect military requirements and to absence of competition from other countries. Exports of candles to foreign countries were valued at Rs. 23·06 lakhs, or much the same as in 1917-18 ; but shipments to India increased by 55 per cent. in value to Rs. 7·30 lakhs.

The trade in hides and skins showed a substantial increase of 77 per cent. in quantity and 81 per cent. in value. The United Kingdom took 81 per cent. of the total value, which amounted to Rs. 61·94 lakhs. Exports to India declined in value from Rs. 25·72 lakhs to Rs. 18·08 lakhs.

Owing to the high prices received in the previous two years, there was a considerable expansion of cotton cultivation and the yield of the Province was estimated at 78,000 bales of 400 lbs. each, as against an actual yield of 47,700 bales in 1917-18. The combined total of exports to foreign countries and to India increased from 204,871 cwts. valued at Rs. 1,18 lakhs to 273,569 cwts. worth Rs. 2,33 lakhs. Shipments to foreign countries went entirely to the United Kingdom and Japan, whose shares were 61 per cent. and 39 per cent, respectively, as compared with 67 per cent. and 33 per cent. in the preceding year. The total foreign shipments amounted to 191,872 cwts., worth Rs. 1,61 lakhs, or an increase of 49 per cent. in quantity and 128 per cent. in value. Exports to India were the highest yet recorded and aggregated 81,697 cwts. valued at Rs. 71 lakhs.

Shipments of cotton-seed oil declined heavily from 74,840 gallons to 8,444 gallons, but the United Kingdom took 22,964 cwts. of cotton-seed oil-cake as against only 4,000 cwts. in the previous year.

The estimated exportable surplus of *pèbyugale* beans, amounting to 105,000 tons of hand-picked beans, was bought up by the Royal Commission on Wheat Supplies in England, and eighty-eight per cent. of the foreign exports of all kinds of beans went to the United Kingdom.

The total exports of rubber from the Province to foreign countries were the highest yet recorded, aggregating 4,149,242 lbs., with a value of Rs. 47 lakhs as compared with 2,634,380 lbs., valued at Rs. 42·60 lakhs, showing an increase of 58 per cent. in quantity and 10 per cent. in value. The average declared value per lb. dropped from Rs. 1-9-1 to Rs. 1-2-1. Practically the whole quantity exported went to the United Kingdom.

The exports of cutch to foreign countries increased by 35 per cent. in quantity and from Rs. 6·44 lakhs to Rs. 10·92 lakhs, or 70 per cent. in value. The United Kingdom took the bulk, but there were also increased shipments to the United States and to France. The value of exports to India declined slightly from Rs. 6·93 lakhs to Rs. 6·81 lakhs.

Only 176 cwts. of shell-lac worth Rs. 24 lakh were exported to the United Kingdom, as compared with 1,912 cwts. valued at Rs. 2·60 lakhs in 1917-18. Shipments of stick-lac to India, however, increased by 2,928 cwts. and Rs. 1·08 lakhs to 18,753 cwts. valued at Rs. 10·49 lakhs.

Exports of pig-lead to foreign countries fell by 1,347 tons and Rs. 8·28 lakhs to 9,222 tons valued at Rs. 42·64 lakhs, or by 13 per cent. in volume and 16 per cent. in value. The United Kingdom took only 349 tons as compared with 4,121 tons in the previous year.

The total quantity of jadestone exported again fell by 345 cwts. to 2,763 cwts., but the value rose slightly by Rs. ·57 lakh to Rs. 12·57 lakhs. As in previous years, almost the entire output went to Hongkong.

Distribution of Rangoon trade.

118. In 1913-14, the last complete year before the war, the United Kingdom's share in the foreign trade of Rangoon was 36·51 per cent. of the value of the whole. The figures for 1915-16 and subsequent years are 47·43, 44·40, 44·80 and 36·80. Her share in the import trade fell from 54·50 to 48·78 per cent., and in the export trade from 39·17 to 30·53 per cent. in the year of report. The share of the British Empire in the whole trade of Rangoon fell from 70·96 to 63·52 per cent., in consequence of the decrease in the share of the United Kingdom; and the figures for other parts of the Empire show little change. European countries increased their share of the total trade from 7·29 to 8·18 per cent. Exports to France increased, and imports from Holland and exports to Italy declined in value.

Owing to the remarkable advance made by Japan, Asia's share in the combined export and import trade increased from 14·75 to 21·72 per cent. Japan's share in the import trade increased from 14·07 to 23·03 per cent., in the export trade from 5·89 to 13·75 per cent., and in the total trade from 8·89 to 16·94 per cent. Apart from Japan, the volume of trade with other Asiatic countries was small and its distribution showed little alteration from that of the previous year. Though trade with Portuguese East Africa increased somewhat, Africa's share in the Rangoon trade remained insignificant, and its value did not amount to one per cent. of the total trade of the port.

Trade with America is practically confined to the United States, and a fall from 11·29 to 8·54 per cent. in the value of that country's share of the import trade caused a fall from 6·66 to 5·82 per cent. in America's proportionate share of the combined import and export trade.

The combined trade in private merchandise between Rangoon and India increased considerably in value from Rs. 21,14 lakhs to Rs. 32,16 lakhs. Trade with Bengal rose in value from Rs. 13,46 lakhs to Rs. 19,35 lakhs, with Bombay from Rs. 3,89 lakhs to Rs. 6,88 lakhs and with Madras from Rs. 3,32 lakhs to Rs. 4,73 lakhs.

Subordinate ports.

119. The combined share of the subordinate ports of Akyab, Bassein, Moulmein, Tavoy, Mergui, Victoria Point, Sandoway and Kyaukpyu was 12·92 per cent. of the total trade of the Province as compared with 14·29 per cent. in the previous year. Akyab's share in the foreign trade increased from ·31 per cent. to 1·96 per cent., but in other respects the figures for the various ports remained without appreciable alteration.

Intra-provincial sea-borne trade.

120. The interportal trade of the Province was conducted mainly between Rangoon and the ports of the Tenasserim Division, and the value of the trade rose by 15 per cent. to Rs. 3·64 lakhs. Both imports and exports increased at every port, except for a slight fall in the negligible imports of Kyaukpyu and for a decrease of Rs. ·88 lakh, Rs. ·16 lakh and Rs. ·12 lakh in the exports of Mergui, Akyab and Bassein, respectively.

Transfrontier trade: total trade.

121. The transfrontier trade between Burma and adjacent foreign countries, such as China and Siam, is recorded with fair accuracy in the north and south of the Province, but no attempt is made to record the trade with Western China, Tongking and Northern Siam between the 19th and 23rd parallels of latitude, owing to the difficulty of establishing recording stations in such remote places.

The total value of trade between Burma and China and Siam rose from Rs. 2,53 lakhs to Rs. 3,39 lakhs, or an increase of 34 per cent. The increase took place both in imports and exports, which increased in value by 30 and 38 per cent., respectively. The increase is due partly to improved conditions following the armistice and partly to the higher general level of prices. The whole trade was distributed under the heads merchandise, treasure and timber, in the proportions of 60, 36 and 4 per cent., respectively. No changes in taxes or tolls were made during the year and recording stations remained the same, except that the

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station at Kangmöng in the Northern Shan States was shifted to the ferry at Kunlon.

China.

122. In the trade with Western China, imports increased from Rs. 96 lakhs to Rs. 1,32 lakhs, or 37 per cent., and exports from Rs. 91 lakhs to Rs. 1,42 lakhs, or no less than 56 per cent., in spite of the presence of a large gang of dacoits on the Chinese side of the frontier during two months of the open season.

Owing to the high prices and decreased importation by sea of cotton and silk manufactured piece-goods, cotton piece-goods of Chinese manufacture, aggregating 1,283 maunds valued at Rs. 1·09 lakhs, were imported for the first time. Raw silk imports amounted to 6,960 maunds valued at Rs. 55 lakhs, or nearly double the weight and treble the value of the previous year. Hides, although decreasing slightly in weight, owing to the poor quality of the Chinese hides imported, increased in value from Rs. 2·09 lakhs to Rs. 2·27 lakhs, owing to high prices. Exports of raw cotton amounted to 12,612 maunds valued at Rs 6·98 lakhs, or an increase of 185 per cent. in weight and 336 per cent. in value. Exports of cotton twist and yarn of Indian manufacture also increased to 69,131 maunds worth Rs. 72·19 lakhs, or an increase of 13 per cent. in quantity and 74 per cent. in value. The increased exports of raw cotton and of twist and yarn were due to the keen demand for raw material for the manufacture of clothes to replace high-priced European piece-goods. Exports of the last mentioned accordingly fell to 4,066 maunds worth Rs. 6·87 lakhs, or a decrease of 61 per cent. in quantity and in value. Exports of silver, mainly on account of cash payments for imported silk, increased by Rs. 16·54 lakhs to Rs. 39·14 lakhs. Chinese dollars to the value of Rs. 2·40 lakhs were taken back to China, as an exchange could not be effected with profit. Apart from the articles specifically mentioned above, the chief imports were lac, tea and silver, and the chief exports opium, petroleum, saltfish and jade.

Siam.

123. Trade with Northern Siam decreased in value by 10 per cent. from Rs. 48·40 lakhs to Rs. 43·78 lakhs; exports declined from Rs. 23·25 lakhs to Rs. 16·98 lakhs, and, though imports rose from Rs. 25·15 lakhs to Rs. 26·80 lakhs, this was entirely due to an increase of Rs. 7·91 lakhs in the value of imported teak. The number of elephants imported dropped from 114 to 24. Of exports, apparel fell in value by 54 per cent. to Rs. ·82 lakh, and European piece-goods by 53 per cent. in quantity and 31 per cent. in value to 700 maunds valued at Rs. 2·41 lakhs. European twist and yarn, however, rose in quantity by 9 per cent. and in value by 29 per cent. to 2,201 maunds worth Rs. 3·78 lakhs. The value of silver exported fell from Rs. 11 lakhs to Rs. 5·22 lakhs, owing to less money being required to pay for the purchase of elephants.

Both the import and export trade with Southern Siam increased satisfactorily and their combined value rose by 24 per cent. from Rs. 16·88 lakhs to Rs. 20·87 lakhs. The chief articles of import were cattle, elephants and silk. Both cattle and elephants decreased by half in number and value, but raw silk rose by 200 per cent. in quantity to 1,154 maunds, and by 351 per cent. in value to Rs. 6·32 lakhs. Exports of silver increased from Rs. 2·41 lakhs to Rs. 3·28 lakhs.

Trade with unadministered Kachin country.

124. Trade with unadministered Kachin country declined by Rs. 11·53 lakhs, or 69 per cent., to Rs. 5·19 lakhs, the fall being due in part to over-trading in the preceding year, and in part to the influenza epidemic, which frightened the Hill Kachins from coming down into the plains. Silver was the chief import from this tract and accounted for Rs. 1·51 lakhs of the total imports of Rs. 2·45 lakhs The chief exports were cattle, apparel and manufactured cotton.

Trade with the Shan States and Karenni.

125. Trade with the Northern Shan States declined nominally by 18 per cent. from Rs. 8,06 lakhs to Rs. 6,62 lakhs, but the real decrease was greater, as the previous year's figures did not include the value of silver transported by rail. Excluding the figures for silver, the decrease in value amounted to Rs 2,27 lakhs, or 30 per cent. The value of imports fell by Rs. 84·66 lakhs, or 21 per cent., and, if silver be excluded from consideration, by Rs. 1,41·86 lakhs, or 38 per cent.

The decrease is due to the Burma Mines Company at Namtu sending away practically no zinc ore during the year of report and imports under this head fell by no less than Rs. 172·49 lakhs to Rs. ·12 lakh. Imports of lead from these mines remained nearly the same in quantity, but increased by 29 per cent. in value to Rs. 1,04·57 lakhs. Brass and copper imports, mainly in the form of Chinese cash, declined from 6,195 maunds to 5,106 maunds in quantity and from Rs. 6·14 lakhs to Rs. 5·25 lakhs in value, consequent on the Chinese Government prohibiting the export of coins to foreign countries. In these States the cotton, sessamum and potato crops were somewhat below the average, and imports of these commodities fell in value by Rs. 1·01 lakhs, Rs. 1·54 lakhs and Rs. 1·40 lakhs to Rs. ·33 lakh, Rs. 2·30 lakhs and Rs. 3·60 lakhs, respectively. Imports of oranges increased in quantity from 38,184 to 47,743 maunds, but their value remained stationary at Rs. 4·37 lakhs. Imports of pickled tea amounted to 216,535 maunds worth Rs. 33·54 lakhs, or a decrease of 3 per cent. in quantity and an increase of 15 per cent. in value. Black tea increased by 14 per cent. in quantity to 67,510 maunds and by 19 per cent. in value to Rs. 30·66 lakhs. Exports declined in value by Rs. 59·16 lakhs to Rs. 3,35·24 lakhs, or, if silver be excluded, the actual decline in merchandise was Rs. 85·15 lakhs. The chief decreases were under coal and coke, iron and railway materials, due to less importation by the Burma Mines Company. Cotton twist and yarn increased by 11 per cent. in quantity and by 38 per cent. in value. On the other hand, European cotton piece-goods fell in quantity by 13 per cent., but rose in value by 9 per cent. Petroleum increased from 101,057 maunds to 169,376 maunds in quantity and from Rs. 9·38 lakhs to Rs. 18·49 lakhs in value, owing to increased consumption by the Burma Mines Company, who are now using less coal and timber fuel. Exports of husked rice trebled in quantity and in value and amounted to 93,521 maunds worth Rs. 4·89 lakhs.

The value of imports from the Southern Shan States increased from Rs. 76·83 lakhs to Rs. 84·05 lakhs, and that of exports to these States from Rs. 1,15·91 lakhs to Rs. 1,17·40 lakhs. Under imports, ponies increased in number by 137 and in value by Rs. 26,000, owing to higher average prices being obtained, but the number of cattle imported decreased from 15,336 to 8,494 and their value from Rs. 8·13 lakhs to Rs. 4·74 lakhs. Garlic decreased by 4 per cent. in quantity to 51,973 maunds, but its value rose by 36 per cent. to Rs. 4·49 lakhs. Potatoes increased by 64,843 maunds to 313,995 maunds in quantity and by Rs. 3·32 lakhs to Rs. 10·32 lakhs in value, owing to higher prices. Hides, stick-lac and paints also increased in quantity and value, but wheat, leaf for cigar wrappers and oranges declined. The quantity of European twist and yarn exported was practically the same, but the value increased by 28 per cent. to Rs. 3·54 lakhs. European piece-goods decreased heavily both in quantity and in value from 14,126 maunds valued at Rs. 32·80 lakhs to 9,772 maunds worth Rs. 25·82 lakhs.

Trade with the Karenni States recovered somewhat from last year's setback; the value of imports increased from Rs. 22·50 lakhs to Rs. 23·53 lakhs, and that of exports from Rs. 8·69 lakhs to Rs. 13·91 lakhs. The principal imports were teak and wolfram valued at Rs. 6·61 lakhs, and Rs. 13·55 lakhs, respectively. The former declined both in quantity and in value, and the latter also declined by 3 per cent. in quantity, but increased by 15 per cent. in value. The value of silver exported to these States increased by Rs. 2·87 lakhs to Rs 5.63 lakhs, mainly to meet the requirements of the Mawchi Mining Company.

Public Works.

Administrative and General.

126. The few administrative changes that took place in the Public Works Department have already been mentioned in paragraph 2. The total expenditure during the year fell from Rs. 1,31·23 lakhs to Rs. 1,22·87 lakhs, of which Provincial Civil Works accounted for Rs. 79·32 lakhs. The most important buildings completed during the year were court-houses at Mawlaik, the new headquarters of the Upper Chindwin District, and at Namhsan, the capital of the Tawngpeng State in the Northern Shan States, and new civil hospitals at Toungoo

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and Mawlaik. Good progress was made with new roads opening up the Myitkyina and Putao Districts, and communications in the Tavoy District were considerably improved in the interests of the tin and wolfram mining industry. The dredger "Frederic Fryer" continued to do excellent work in the reclamation of delta towns. The work of the department was somewhat hampered by the absence of many officers employed on military duty outside the Province.

(*i*) *Roads and Buildings.*

Communications.

127. The total length of metalled roads in the Province outside municipalities and notified areas rose from 1,920 miles to 1,972 miles, of which all but 10 were maintained by the Public Works Department. The length of unmetalled roads also increased from 10,339 miles to 10,570 miles, of which 2,185 miles were maintained by local authorities and the remainder by the Public Works Department. The total expenditure on communications was Rs. 59·06 lakhs of which Rs. 22·69 lakhs were spent on original works and Rs. 36·37 lakhs on repairs. The corresponding figures for the previous year were Rs. 55·92 lakhs, Rs. 16·77 lakhs and Rs. 39·15 lakhs, respectively. Satisfactory progress was made in many districts with the replacement of temporary bridges by permanent structures, perhaps the most notable work being the completion of a steel truss bridge costing Rs. 1·09 lakhs over the Ngalaik stream at Pyinmana in the Yamèthin District. Other large bridges of a similar type were either completed or begun in the Insein, Tavoy, Hanthawaddy, Myitkyina, Putao and Prome Districts and in the Northern and Southern Shan States. In the Pegu District a raised and metalled bridle-path with bridges for cart traffic from Daik-u to Ôkshitkôn was completed at a cost of Rs. 1·11 lakhs and considerable improvements were effected in the unmetalled roads of the Shwebo District. In the Myitkyina and Putao Districts good progress was made with the construction of the cart-road between Vowsong and Seniku; the first section of 17 miles was completed at a cost of Rs. 2·21 lakhs and a beginning was made with the embanking and bridging of the second section. In the Amherst District the survey of a road between Thanbyuzayat and Ye in the interests of the salt industry was completed and this road will eventually form a part of the contemplated trunk road between Moulmein and Tavoy and Mergui. In the Tavoy District another section of this trunk road was practically completed and much progress was made with the metalling and improvement of a network of roads serving the tin and wolfram mines.

Buildings, Imperial and Provincial.

128. The amount spent on Civil Buildings fell from Rs. 32·14 lakhs to Rs. 23·66 lakhs, of which Rs. 12·38 lakhs were spent on original works and Rs. 11·28 lakhs on repairs. As compared with the previous year, expenditure on original works fell by nearly Rs. 10 lakhs, while that on repairs increased by approximately Rs. 1 lakh. Among the many works completed were a combined Post and Telegraph Office at Kalaw in the Southern Shan States, numerous residential and administrative buildings rendered necessary by the transfer of the headquarters of the Upper Chindwin District from Kindat to Mawlaik, additional cottages for the inmates of the Rangoon Lunatic Asylum, a municipal hospital at Toungoo, a new court-house at Pônnagyun in the Akyab District and various school buildings in the Bhamo, Sandoway and Minbu Districts. Satisfactory progress was also made with the scheme for building permanent quarters for the civil police throughout the Province. Minor structural alterations and improvements were carried out in the jails at Insein, Myaungmya, Toungoo and Ma-ubin; and the construction of barracks for military police at Namtu in the Northern Shan States and at Kalemyo in the Upper Chindwin District was started.

Miscellaneous public improvements and sanitary works.

129. The expenditure on Miscellaneous Public Improvements fell from Rs. 13·97 lakhs to Rs. 12·27 lakhs, of which Rs. 7·49 lakhs were spent on original works and Rs. 4·78 lakhs on repairs. In the Northern Shan States the demarcation and lay-out of the new town of Hsipaw were completed, and substantial progress was also made with the lay-out of the new station at Putao. The work of

metalling the roads in the civil station of Kalaw in the Southern Shan States was taken in hand and the lay-out of three railway towns in the Bassein District was completed. The dredger "Frederic Fryer" reclaimed 45·34 acres of land at Dedayè in the Pyapôn District and also 8·9 acres required for civil and military police lines at Kyônmangè in the Myaungmya District. New jetties and landing stages were either completed, or in course of construction, at Pauktaw and Pônnagyun in the Akyab District, at Andrew Bay in the Sandoway District, at Tantabin and Shwele in the Insein District, at Mindat in the Tavoy District, and at Thayagôn in the Pyapôn District. Additions were made to various bazaars and that at Sandoway was completed at a cost of Rs. ·96 lakh.

Experimental tube wells were sunk with successful results at Mawlaik and Yenangyaung, but those at Paungdè, Henzada and Zigôn proved failures. Projects for supplying water to numerous small towns were examined and at Toungoo a detailed survey was put in hand. The tube well water-supply for Ma-ubin was completed and opened at a total cost of Rs. 1·52 lakhs. The head works of the water-supply scheme for Pegu were also completed and the arrival of pipes from England is awaited to carry out the distribution scheme. Surveys for the drainage of the towns of Pyu, Pegu, Kanyutkwin, Kyaiklat and Insein were completed and the schemes put in hand.

Military works.

130. Expenditure on Military Works rose from Rs. 4·13 lakhs to Rs. 4·75 lakhs, of which Rs. 1·69 lakhs were spent on original works and the balance on repairs. At Mandalay temporary quarters for the Burma Sappers and Miners were completed, and the construction of quarters and cook-houses for the men of the 25th Mule Corps was begun. Improvements were made in the temporary accommodation for the 70th Burma Rifles at Maymyo and at the same station married quarters for men of the 2/10th Gurkha Rifles were almost completed. Three hutted camps for Turkish prisoners of war in the Southern Shan States were constructed and improvements were carried out at the Prisoners-of-war camp at Thayetmyo. Another Prisoners-of-war camp at Meiktila was completed at a cost of Rs. 3·45 lakhs. The work of sinking a six-inch diameter tube well for the water-supply at Mandalay Fort was put in hand, and all drains, culverts and main roads in the Eastern Town Drainage Scheme of the Mandalay Cantonment were completed.

(*ii*) *Railways and Tramways.*

Railways: construction and surveys.

131. The railways of the Province are worked by the Burma Railways Company, Limited. The length of open line increased from 1,598·46 miles to 1,604·98, owing to the opening to traffic of a new loop line between Togyaunggalé and Dawbong in the neighbourhood of Rangoon.

The Railway Board sanctioned a reconnaissance survey, to be carried out by the agency of the Burma Railways Company, of the country between the Lashio Branch of the Burma Railways and Namtu, in order to determine the best alignment for a railway on the metre gauge to serve the mines of the Burma Mining Company at Namtu. This survey is in progress.

The Railway Board also invited the opinion of the Local Government on a scheme of surveys for branch lines in the Tenasserim Division, including detailed surveys from Moulmein to Wagaru, from Mudôn to Yebu on the Mudôn Three Pagodas alignment, from Yebu (near Tavoy) to the steamer anchorage, and, as an alternative to the first mentioned, a survey for a line from Moulmein to Yebu. The opinions of the Agent of the Burma Railways and of local officers on these different projects have been obtained.

The application of Mr. Wali Mahomed for a concession for the construction of a line between Kyangin and Petye is under consideration by the Railway Board.

The Buthidaung-Maungdaw Tramway was taken over by the Arakan Light Railway Company in pursuance of an agreement with the Secretary of State, and the line was opened for traffic on the 15th February 1919.

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Sanction was accorded to a detailed survey to be carried out by the Assam-Bengal Railway Company for a line on the metre gauge from Maungdaw to Akyab, a distance of 77 miles.

The employment of Turkish prisoners on earth-work on a length of 17 miles of the Pyinmana-Magwe railway was approved by the Secretary of State, and the work was completed. The detailed report of this projected line is under consideration.

Progress was made with the third section of the Southern Shan States line between Aungban and Heho, on which Turkish prisoners-of-war were also employed. This section was resurveyed and an estimate for its construction amounting to Rs. 16·28 lakhs was submitted to the Railway Board.

Accidents and interruptions.

132. Interruptions due to floods during the rains were less numerous than usual, and in no case did the interruption exceed 36 hours in duration. On the 18th May 1919, owing to exceptionally heavy rain, a breach occurred between Kyatti and Payangazu stations on the Southern Shan States line, but through communication was restored the same day. On the 19th May on the same line between Payangazu and Hlaingdet stations heavy floods scoured the embankment to the ground level in some places and also damaged the approaches to two bridges. Transhipment was resorted to, but through running was resumed on the 20th May. On the 7th June, owing to the bursting of the embankment of the Mahananda tank near Shwebo, the line between Shwebo and Myingatha stations was flooded and traffic was suspended for 24 hours as a precautionary measure. On the 1st August 1919 heavy floods breached the line in several places between Toungoo and Kyedaw Stations, necessitating the transhipment of passengers and mails for 24 hours, when the line was reopened to through traffic. On the 15th August 1919 a sudden flood occurred between Kyauktaga and Penwègôn stations on the main line. This uprooted several large trees, which jammed at the bridge and displaced the girders. A serious accident was averted by the alertness and presence of mind of an engine-driver, who noticed that the girders and rails were out of alignment and brought his train to a standstill. Through communication was restored next day. There were however, several accidents from other causes. On the 27th January 1919 a mixed train collided with a goods train standing in Nyaungpattaya Station, owing to the driver of the mixed train running against signals. One Burman cattle attendant was injured, both engines were damaged, one goods waggon was derailed and two others were telescoped. The driver responsible for the accident was prosecuted. On the 16th February at Bawgyo Station an engine and five covered goods waggons were derailed, owing to the incorrect setting of points, but no passengers were injured and through communication was restored the same day. On the 8th May 1919 at Henzada Shore Station a 10-ton crane fell into the river while being loaded on to an end loader barge and blocked the slip-way. Through booking of goods and live-stock was suspended till the 13th May, passengers in the meanwhile being conveyed across the river by boat. On the 20th May 1919 a train collided with a bull between Gamônzeik and Zibyugôn Stations and three goods waggons were derailed and four capsized. No passengers were hurt, but damage to the amount of Rs. 4,000 was done to rolling-stock. Through running was resumed next day. On the 3rd June, while a local mixed train of 14 vehicles was entering Penwègôn Station, the twelfth vehicle took the station line instead of the second line and capsized, derailing and badly damaging the rear bogie of the passenger vehicle in front of it. A female passenger was slightly injured and damage to the extent of Rs. 900 was done to the interlocking and rolling-stock. The accident was due to the facing points not having been locked and reversing themselves during the passage of the train over them. On the 9th June the ferry crossing of the waggons at Sagaing was interrupted owing to the grounding of a flat which blocked the channel. The grounding was due to a sudden fall of the river, but the flat was refloated when the river again rose on the 15th June. On the 3rd July a small bogie waggon caught fire between Nyaungbinwun and Myinmu Stations and five Burman passengers, who jumped off the train through fright, were injured, one of them seriously.

Traffic and finance.

133. The number of passengers carried on the whole system during the year rose from 26,959,871 to 28,267,349. Gross earnings rose from Rs. 247·73 lakhs to Rs. 293·55 lakhs ; working expenses from Rs. 133·26 lakhs to Rs. 158·88 lakhs and net earnings from Rs. 114·50 lakhs to Rs. 134·67 lakhs.

On the main line gross earnings increased from Rs. 222·75 lakhs to Rs. 263·29 lakhs ; working expenses from Rs. 117·89 lakhs to Rs. 140·07 lakhs and net earnings from Rs. 104·85 lakhs to Rs. 123·22 lakhs. The capital outlay since the beginning of operations fell from Rs. 1,784·95 lakhs to Rs. 1,775·15 lakhs, consequent on large sales of rolling-stock to the military department for use overseas. The train mileage run increased from 4,646,767 to 5,043,736 miles and the average earnings per mile per week from Rs. 319·23 to Rs. 375·51. The average earnings per train mile rose from Rs. 4·79 to Rs. 5·22 and the average expenses from Rs. 2·53 to Rs. 2·78. The percentage of expenses to earnings increased from 52·93 to 53·20 and that of net receipts to capital outlay from 5·75 to 7·03. Among the chief items of expenditure were the construction of the Togyaunggale-Dawbong loop line, relaying the line from Toungoo to Yamèthin with 60 lb. rails, remodelling Thazi station yard and constructing a new bridge over the Pazundaung creek.

Owing to sales of rolling-stock for overseas service the capital outlay on the Pegu-Moulmein railway since the beginning of operations was reduced to Rs. 153·10 lakhs. Train mileage rose from 478,387 to 553,964 miles ; the average earnings per train mile increased from Rs. 3·75 to Rs. 4·06 and expenses from Rs. 1·96 to Rs. 2·16. Gross earnings rose from Rs. 17·93 lakhs to Rs. 22·47 lakhs and expenses from Rs. 9·40 lakhs to Rs. 11·94 lakhs. The percentage of expenses to gross earnings increased from 52·43 to 53·12 per cent. and that of net receipts to capital outlay from 5·53 to 6·38. The mean mileage worked was 121·27 miles.

The capital outlay during the year on the Henzada-Kyangin railway amounted to Rs. 21,676, making a total of Rs. 65·11 lakhs since the beginning of operations. The train mileage increased from 72,914 to 86,151 miles. Gross earnings rose from Rs. 2·06 lakhs to Rs. 2·98 lakhs and working expenses from Rs. 1·79 lakhs to Rs. 2·34 lakhs. The ratio of expenses to earnings rose from 67·47 to 78·49 per cent., while that of net receipts to capital outlay declined from 1·33 to 0·99 per cent. The mean mileage worked was 65·66 miles.

Capital expenditure on the first two sections of the Southern Shan States line, namely from Thazi to Aungban, a distance of 70 miles, amounted to Rs. 14,897. This raises the total expenditure from the commencement of operations to Rs. 153·78 lakhs, inclusive of Rs. 3·77 lakhs debitable to the extension from Aungban to Heho, which constitutes the third section and is now under construction. The train mileage fell from 104,718 to 98,207 miles ; gross earnings increased from Rs. 4·40 lakhs to Rs. 4·81 lakhs, working expenses from Rs. 4·17 lakhs to Rs. 4·53 lakhs, and net earnings from Rs. 0·23 lakh to Rs. 0·28 lakh. The ratio of expenses to gross earnings declined from 94·78 to 94·24 per cent. and the percentage of net receipts to capital outlay increased from 0·15 to 0·18 per cent. The mean mileage worked was 69·68. A sum of Rs. 3·05 lakhs was incurred during the year on account of earthwork on the Aungban-Heho extension.

The survey for the Pyinmana-Magwe line was completed at a cost of Rs. 30,025, and an expenditure of Rs. 27,091 has so far been incurred on the survey of the Namtu line. Expenditure on earth-work on the Pyinmana-Magwe line amounted to Rs. 80,241. Nothing was spent on the survey of the East Daga line, and further work on this project has been suspended.

Tramways.

134. There was a further remarkable rise in the number of passengers carried by tramways in Rangoon from 17,639,310, to 21,948,303, or double the number carried two years ago. The running mileage was computed at 1,544,840 as against 1,554,842 in the preceding year. Receipts rose from Rs. 9·35 lakhs to Rs. 11·21 lakhs.

The tramways in Mandalay also had increased traffic, the number of passengers carried rising from 2,601,281 to 3,648,038, the running mileage from 455,201 to 455,795 and the receipts from Rs. 2·06 lakhs to Rs. 2·88 lakhs.

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The light railway from Mandalay to Madaya, about 18 miles in length, continued to do badly, inspection disclosed numerous defects in the construction and working of the line and the Company has gone into liquidation.

(*iii*) *Canals.*

Navigation canals.

135. The Pegu-Sittang Canal was maintained in good working order throughout the year, though the usual difficulty from shallow water for a stretch of five miles near Myitkyo was experienced during the months of April and May. A new dredger is being procured to widen and deepen the canal where necessary. The water hyacinth gave a great deal of trouble and blocked the canal in one part for a month in December, but new methods for dealing with this pest have been evolved and it is hoped they will greatly mitigate the nuisance. All sluices worked well during the year and progress was made with the renewal of the lock gates at Tawa. The revenue from this canal rose from Rs. 1·78 lakhs to Rs. 1·98 lakhs, which is the highest figure recorded during the past ten years, but working expenses also rose from Rs. 1 lakh to Rs. 1·16 lakhs.

The net revenue from the Twante Canal, which was constructed solely for navigation purposes, rose from Rs. 2·99 lakhs to Rs. 3·14 lakhs and expenses of working from Rs. ·89 lakh to Rs. 1·16 lakhs. Improvements were made to the quarters of the toll collecting staff at Twantewa and Letpangon, and the construcion of the marginal embankment along the northern side of the "New Cut" was completed at a total cost of Rs. ·11 lakh.

The Shwetachaung Canal between Mandalay and Madaya is also used for navigation as well as for irrigation purposes. The only work of importance in connection with this canal was the construction of a new bridge at Madaya, which was practically completed during the year.

The bund constructed across the abandoned Sittang-Kyaikto Canal to prevent the water rushing up towards Kyaikto was swept away by the bore, and this necessitated the building of a new bund at a different site in order to protect the railway line.

Irrigation.

Major irrigation works.

136. There are in the Province four irrigation works classed as "Major," namely the Mandalay, Shwebo, Môn and Ye-u Canal systems. The total capital outlay on these at the end of the financial year rose from Rs. 2,15·93 lakhs to Rs. 2,20·58 lakhs and the amount expended during the year fell from Rs. 5·62 lakhs to Rs. 4·65 lakhs. The area irrigated or benefited rose from 274,587 acres to 301,895; the gross revenue receipts from Rs. 11·44 lakhs to Rs. 17·98 lakhs; working expenses from Rs. 5·02 lakhs to Rs. 6·70 lakhs; the net revenue from Rs. 6·42 lakhs to Rs. 11·24 lakhs; and the percentage of net revenue to capital expenditure from 3 to 5·09 per cent.

The increase in the area irrigated is due to the inclusion, for the first time, of 33,453 acres benefited by the Ye-u Canal, which was completed during the year. A large proportion of the increase in revenue is due to realization during the year of considerable arrears outstanding from the previous year.

Extensions to the training works in the Mu River at the head works of the Shwebo Canal were nearly completed and many bridges, syphons and other miscellaneous works were either completed or begun on all four canal systems.

Though the water-supply of the Mandalay Canal was regular and ample, the area irrigated during the year fell from 61,005 acres to 60,932 acres, the decrease being due to the low price of paddy, which led to large areas of irrigable land being left fallow. The gross revenue increased from Rs. 2·33 lakhs to Rs. 4·68 lakhs; working expenses from Rs. ·77 lakh to Rs. 1.15 lakhs and the net revenue from Rs. 1·56 lakhs to Rs. 3·53 lakhs. The increase in revenue is due to the collection of Rs. 1·46 lakhs of arrears due from the previous year and the larger working expenses are due to the increase in collection charges on the greater amount of revenue collected.

The area irrigated by the Shwebo Canal fell by 6,947 acres to 148,034 acres. The decrease is attributable partly to increased fallowing, owing to the low course of paddy prices, partly to the extension of wheat cultivation, which is planted after the close of the irrigation season and for which the canal gets no credit, and partly to the neglect of cultivators to keep their water-courses in proper repair. An interesting feature was the introduction of onions as an irrigated crop and there is some probability that the cultivation of this valuable crop will be extended in future years. The gross revenue rose from Rs. 6·84 lakhs to Rs. 8·77 lakhs, working expenses from Rs. 2·77 lakhs to Rs. 3·45 lakhs, and the net revenue from Rs. 4·07 lakhs to Rs. 5·32 lakhs. The reasons for the increase in revenue and working expenses are the same as those in the case of the Mandalay Canal, the arrears collected during the year amounting to Rs. 1·35 lakhs.

The area irrigated by the Môn Canals increased from 58,601 acres to 59,476 acres, owing to improvements in the system of irrigation and the absence of destructive floods. The area under rice decreased, owing to the popularity of small white beans. The gross revenue increased from Rs. 2·27 lakhs to Rs. 3·85 lakhs, working expenses fell from Rs. 1·48 lakhs to Rs. 1·39 lakhs, and the net revenue rose from Rs. ·79 lakh to Rs. 2·46 lakhs. The increase in revenue is mainly due to the collection of arrears from the previous year amounting to Rs. ·94 lakh. A sum of Rs. ·35 lakh was similarly outstanding at the end of the year of report.

The Ye-u Canal was opened to irrigation on the 1st June 1918. The distributary system is still under construction and most of the water-courses have yet to be built. Though intense rainfall delayed the effective opening of the canal and the low river level somewhat restricted the supply of water, nevertheless 33,453 acres were irrigated. The canal area is at present under settlement and meanwhile a temporary water rate of Rs. 2 per acre actually irrigated is being levied in addition to the ordinary land revenue. Gross revenue amounted to Rs. 67,965 and working expenses to Rs. 70,264, with the result that the net revenue account showed a small deficit of Rs. 2,299.

137. Nearly all the irrigation works in the Province classed as "Minor" lie in Upper Burma. Many miscellaneous repairs and improvements were carried out, of which the most important were the rebuilding of the Hteinnyetkôn weir in the Yamèthin District, the rebuilding of the regulator at the headworks of the Sama Canal in the Kyauksè District and the completion of the survey for the remodelling of the Man Canal system in the Minbu District. Minor irrigation works.

In the Mandalay District the area irrigated from the Shwetachaung Canal fell from 15,744 acres to 11,945 acres and the revenue from Rs. 73,295 to Rs. 65,430, owing to the continuous high level of the Irrawaddy River. The area irrigated by the Mu canal in the Shwebo District also fell from 18,081 acres to 7,428 acres and the revenue from Rs. 25,161 to Rs. 12,089, the decreases being attributable to deficient rainfall.

The areas irrigated by the canal systems taking off from the Panlaung and Zawgyi Rivers in the Kyauksè District increased from 129,336 acres to 148,570 acres and the revenue from Rs. 6·27 lakhs to Rs. 6·85 lakhs. The considerable increase of over 19,000 acres is attributable to the good and regular supply of water and also to the fall in the market rate for small white beans, which caused cultivators to revert to the cultivation of rice.

In the Minbu District the area irrigated by the Man Canal fell slightly from 17,126 acres to 16,765 acres, while that irrigated by the Salin Canals rose slightly from 28,169 acres to 28,872 acres. Owing to illness amongst cultivators the revenue from the Man Canal fell from Rs. 1·07 lakhs to Rs. 1·04 lakhs and that from the Salin Canals from Rs. 1·11 lakhs to Rs. 1·10 lakhs. The revenue from minor irrigation works in the same district fell from Rs. 2,001 to Rs. 780, owing to the entire destruction of the hot-weather paddy crop by untimely floods of the Irrawaddy River.

In the Myingyan and Yamèthin Districts the irrigated area decreased by nearly 50 per cent., with a corresponding decline in revenue, owing to insufficient

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and ill distributed rainfall. In the Meiktila District also the season was unfavourable and the irrigated area fell from 84,391 acres to 79,173 acres, but the revenue nevertheless, increased from Rs. 1·70 lakhs to Rs. 1·74 lakhs, owing to more extensive cultivation of better class land on which a higher rate of revenue is levied.

As compared with the previous year the gross revenue from all minor irrigation works in Upper Burma rose from Rs. 11·83 lakhs to Rs. 12·39 lakhs, working expenses fell from Rs. 5·63 lakhs to Rs. 5·35 lakhs and the net receipts accordingly increased from Rs. 6·20 lakhs to Rs. 7·05 lakhs.

CHAPTER V.

REVENUE AND FINANCE.

REFERENCES—

Report on the Land Revenue Administration of Burma during the year ended the 30th June 1919.

Administration Report of the Public Works Department, Burma (Irrigation), for the year 1918-19.

Report on the Maritime Trade and Customs Administration of Burma for the official year 1918-19.

Annual Statement of the Sea-borne Trade and Navigation of Burma with Foreign Countries and Indian Ports for the official year 1918-19, Part I, Foreign Trade.

Report on the Administration of the Excise Department in Burma during the year ended the 31st March 1919.

Report on the Administration of Salt Revenue in Burma during the year 1918.

Note on the Administration of the Stamp Revenue in Burma during the year 1918-19.

Note on the Working of the Income-tax Act, VII of 1918, in Burma for the year 1918-19.

Report on the Forest Administration of Burma for the year ended the 30th June 1919.

Report on the Working of the Rangoon Municipality for the year 1918-19.

Report on the Reclamation of Rangoon Town Lands for the year 1918-19.

Resolution reviewing the Reports on the working of Municipal Committees in Burma (except Rangoon) during the year 1918-19.

Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign Countries, Volume II.

Statistical Abstract for British India, Volumes II and IV.

Provincial Settlement.

138. The receipts and expenditure of the Province, other than those pertaining to local authorities, are divided between the Imperial and Provincial Governments in accordance with the terms of what is known as the Provincial Settlement. The existing Provincial Settlement was drawn up in 1907, but its terms were modified in 1911, with a view to converting large fixed assignments, which the Province then received from Imperial Revenues, into shares of growing revenue. The original Provincial Settlement was described in the Report on the Administration of Burma for the year 1907-08, and the subsequent modifications were summarized in the Report on the Administration of Burma for the year 1911-12. In 1915-16, in view of the fact that the Settlement had proved less favourable to the Province than had been anticipated, an additional recurring assignment from Imperial to Provincial Revenues of Rs. 15·11 lakhs was sanctioned, and a progressive guarantee was given of a minimum total growing revenue advancing by Rs. 8 lakhs a year from Rs. 479·46 lakhs in 1911-12 up to Rs. 575·46 lakhs in 1923-24, and thereafter a minimum total revenue of the latter amount, exclusive of assignments. No modification was made in the year of report or in the two preceding years.

Gross Revenue and Expenditure.

139. The gross receipts for the Province for the year of report rose from Rs. 12,39·81 lakhs to Rs. 14,64·23 lakhs and the gross expenditure from Rs. 8,68·42 lakhs to Rs. 9,31·83 lakhs. This increase was common to both Imperial and Provincial receipts, the former rising from Rs. 4,49·52 lakhs to Rs. 5,43·16 lakhs and the latter from Rs. 5,55·59 lakhs to Rs. 6,48·56 lakhs. Receipts of District and District Cess Funds also rose from Rs. 51·17 lakhs to Rs. 69·89 lakhs; of other Local Funds from Rs. 84·73 lakhs to Rs. 95·44 lakhs and of Municipalities from Rs. 98·79 lakhs to Rs. 1,07·19 lakhs. There was also an

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all-round increase in expenditure, Imperial expenditure rising from Rs. 53·18 lakhs to Rs. 65·75 lakhs, Provincial from Rs. 5,78·27 lakhs to Rs. 6,11·69 lakhs, that of District and District Cess Funds from Rs. 58·24 lakhs to Rs. 60·81 lakhs, of other Local Funds from Rs. 83·30 lakhs to Rs. 92·69 lakhs and of Municipalities from Rs. 95·44 lakhs to Rs. 1,00·90 lakhs.

These figures include the transactions of the Akyab Port Fund, the Rangoon Port Trust, the Rangoon Municipality, the Rangoon Pilot Fund and the Moulmein Municipality, though they do not bank with Government.

(*a*) *IMPERIAL REVENUE AND FINANCE.*

[*In this section are discussed sources of revenue or expenditure which are partly as well as those which are wholly Imperial.*]

Total Imperial figures: notable variations.

140. The net increase of Rs. 93·64 lakhs in Imperial receipts was the result of a gross increase of Rs.1,02·67 lakhs, mainly under the heads "Land Revenue," "Salt," "Customs," "Income-tax" and "Major Irrigation Works" combined with a gross decrease of Rs. 9·03 lakhs, mainly under the head "Transfers between Imperial and Provincial." The increase of Rs. 36·97 lakhs under the head "Land Revenue" was mainly due to the realisation of the arrears of revenue of the year 1917-18, collection of which had been postponed till 1918-19, owing to the unsatisfactory condition of the paddy market, and partly also to an improvement in the fishery revenue. The salt revenue rose by Rs. 4·05 lakhs, owing to an increase in the output of local salt. An improvement of Rs. 28·11 lakhs under the head "Customs" was due partly to the general enhancement in the value of all commodities, partly to the shipment of rice on account of the Wheat Commission, and partly to larger receipts from excise duty on motor spirit and tobacco. Receipts from "Income-tax" increased by Rs. 20·51 lakhs, mainly on account of more accurate assessment consequent on the reorganisation of the Rangoon Income-tax office, and also on account of the assessment of super-tax. There was an improvement of Rs. 5·95 lakhs in the revenue from "Major Irrigation Works." This was due mainly to recovery during the year of report of the arrears of revenue of the year 1917-18, collection of which was postponed, owing to the unsatisfactory condition of the paddy market, and partly also to larger receipts from the Twante Canal. Imperial receipts under the head "Transfers between Imperial and Provincial" declined, and Provincial receipts consequently increased by Rs. 8·84 lakhs, owing to numerous assignments from Imperial to Provincial for various purposes including primary education, the Kuki operations, the establishment of an Agricultural College at Mandalay and of a Technical and Industrial School at Moulmein, and a publicity campaign. Increased assignments were also granted from Imperial revenues to cover expenditure on the new Putao District.

The net increase of Rs. 12·58 lakhs in Imperial expenditure was the result of a gross increase of Rs. 14·20 lakhs, mainly under the heads "Irrigation Works," "Refunds and Drawbacks" and "Irrigation Major Works," and a gross decrease of Rs. 1·62 lakhs, mainly under the heads "Civil Works, Public Works Department" and "Miscellaneous." The capital outlay not charged to revenue on "Irrigation Works" was higher by Rs. 8·19 lakhs than that of the previous year, in which a heavy adjustment was made on account of the cost of the dredger "Lees" made over to the Military Department. The increase of Rs. 1·77 lakhs under "Refunds and Drawbacks" was due to larger refunds of customs duty, owing to shortage of tonnage, though this was partly counterbalanced by smaller refunds of income-tax. Expenditure on "Major Irrigation Works" rose by Rs. 1·76 lakhs, owing to heavier maintenance charges for the completed portion of the Ye-u Canal and to increased commission on account of larger revenue collections. The expenditure on "Civil Works" fell by Rs. ·86 lakh, owing to smaller outlay on original works, and under "Miscellaneous" owing to smaller expenditure on remittances of coin as the result of the increased note circulation.

Land Revenue.

Land Revenue receipts.

141. The gross receipts under "Land Revenue" for the financial year rose from Rs. 4,13·74 lakhs to Rs. 5,14·28 lakhs, mainly owing to the realisations of collections postponed from the previous year. Under the terms of the Provincial Settlement three-eighths of the receipts are allotted to Imperial and the rest to Provincial Funds, so the amount credited to Imperial and Provincial Funds rose from Rs. 1,54·10 lakhs to Rs. 1,91·07 lakhs and from Rs. 2,59·64 lakhs to Rs. 3,23·21 lakhs, respectively. Expenditure under this head is wholly debitable to Provincial Funds and rose from Rs. 60·19 lakhs to Rs. 70·43 lakhs. This head includes receipts derived from the land-tax, or land revenue proper, which is dealt with in Chapter II of this Report, and various other items detailed below. Collections of land revenue proper due for the year 1918-19 amounted to Rs. 2,99·60 lakhs, arrears of the year 1917-18 collected during the year of report amounted to Rs. 8·57 lakhs, and the total collections for the year were thus Rs. 3,08·17 lakhs. The corresponding figures for the previous year were Rs. 3,00·22 lakhs, Rs. ·68 lakh and Rs. 3,00·90 lakhs.

Collections of capitation-tax in Lower Burma fell from Rs. 56·82 lakhs to Rs. 52·79 lakhs, the number of persons assessed from 1,407,680 to 1,384,698, while the amount remitted increased considerably from Rs. 1·33 lakhs to Rs. 4·65 lakhs. The decrease in assessees is mainly due to the non-assessment of immigrant Chittagonian coolies in the Akyab District. These men this year escaped assessment as they are ordinarily assessed in January and February and orders suspending the collection of the tax were received in December. The same district is responsible for Rs. 2·81 lakhs of the total remissions of Rs. 4·65 lakhs, which represents the uncollected portion of the tax at the time when the Lieutenant-Governor visited the district and remitted the outstanding balance. The amounts collected in this district during the year of report should, however, be treated as remissions, as one full year's remission was granted and the amount collected during 1918-19 is being carried forward and counted against the demand for 1919-20. Influenza was the cause of a decline in the number of assessees in several districts. The number of persons exempted increased from 192,886 to 211,123, most of whom were exempted on account of poverty and old age. Collections of land-rate in lieu of capitation-tax in certain towns fell from Rs. 1·01 lakhs to Rs. 1·00 lakh and the area assessed from 7,749 acres to 7,549 acres. These decreases are due to the exemption of land in the occupation of income-tax payers.

Collections of *thathameda* in Upper Burma increased slightly from Rs. 39·44 lakhs to Rs. 39·54 lakhs, while the number of households assessed decreased slightly from 873,757 to 873,301. Remissions fell from Rs. 59,251 to Rs. 54,704, and the outstandings at the end of the year from Rs. 10,933 to Rs. 2,487. The number of exempted households increased from 110,989 to 113,686, poverty being the chief ground of exemption. Influenza and the exemption of recruits for the army and their parents are the main reasons for the increase in the number of exemptees.

The demand of fishery revenue rose from Rs. 31·23 lakhs to Rs. 33·48 lakhs. Rents bid at the annual auctions of leased fisheries increased by no less than Rs. 2·34 lakhs, owing to keen competition, but the revenue from net licenses fell by Rs. 7,526, owing to the high cost of twine and boat-building materials. The season was on the whole a favourable one, there was a good market for fish and fish-paste, and in the majority of districts lessees obtained substantial profits. Remissions increased from Rs. 14,859 to Rs. 28,230 and the balance outstanding at the end of the year from Rs. 8,324 to Rs. 15,023, but collections also rose from Rs. 30·99 lakhs to Rs. 33·06 lakhs.

Collections of miscellaneous land revenue fell from Rs. 45·81 lakhs to Rs. 44·96 lakhs. The sub-head "Royalties on Petroleum, Rubies, Jade and Amber" is solely responsible for the decrease, receipts on this account falling from Rs. 36·95 lakhs to Rs. 34·82 lakhs, and all other items show an increase. Even under this sub-head the decrease is nominal, and is more than accounted for by chellans for Rs. 3·26 lakhs, payable by Oil Companies in the Magwe District,

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being received too late for incorporation in the accounts of the year of report. Owing chiefly to increased activity in the tin and wolfram mining industries, receipts under the sub-head "Other minerals" rose from Rs. 3·66 lakhs to Rs. 4·40 lakhs. Rents of Town Lands not credited to Local Funds increased from Rs. 2·71 lakhs to Rs. 2·98 lakhs, and receipts under the Village Act from Rs. 1·89 lakhs to Rs. 2·12 lakhs, in spite of a marked decrease in the number and amount of collective fines imposed on villages for misconduct.

Canal (Navigation and Irrigation) Revenue.

142. Paragraphs 89, 135, 136 and 137 of Chapter IV deal with the works for protection, navigation and irrigation of the Province and the revenue obtained from them in the year of report. Receipts and expenditure on "Major Works" are wholly Imperial; those on others are wholly Provincial. The only "Major Works" in the Province are the Mandalay, Shwebo, Môn and Ye-u Canals, which are Irrigation Works, and the Twante Canal, which is a Navigation Work.

Sources of Imperial Revenue other than the Land.

Customs.

143. Both receipts and expenditure under the head "Customs" are classified as "Imperial," and the former do not include the import duty on salt. The total collections for the year rose from Rs. 1,89·56 lakhs to Rs. 2,17·67 lakhs. Import duty rose from Rs. 85·53 lakhs to Rs. 95·59 lakhs and export duty from Rs. 78·42 lakhs to Rs. 87·03 lakhs. The causes of these fluctuations are explained in paragraphs 113—120 of this Report. The expenditure on "Customs" rose from Rs. 7·63 lakhs to Rs. 8·33 lakhs, and the net revenue under this head from Rs. 1,81·93 lakhs to Rs. 2,09·34 lakhs.

Opium.

144. Under the head "Opium" in the Imperial accounts there is no expenditure in Burma, and the receipts include only the payments made by the Government of Burma to the Government of India for the purchase of opium. All other receipts and expenditure in connection with the drug are included under the head "Excise." In the year of report the Government of Burma spent Rs. 6·08 lakhs on the purchase of opium as compared with Rs. 5·19 lakhs in the previous year.

Salt: General.

145. The Burma Salt Act, 1917, came into force on the 1st January 1918, together with rules, directions and notifications thereunder, but in practice the changes were not of much importance. The chief object of the Act was to bring the law and procedure more into harmony with the actual state of affairs, which has resulted from the gradual replacement of the composition duty system by the direct duty system, under which 98 per cent. of the duty levied in the year of report was assessed.

Under the new Act the duty is levied at a fixed rate per 100 viss instead of per maund, but this rate has been fixed at Rs. 5-7-6, which is exactly equivalent to the previously existing rate of Re. 1-4-0 per maund, and is also identical with the customs duty leviable on imported salt. The most satisfactory feature of the year was the continued substantial progress made in the local manufacture of salt. The output of Burma salt increased by nearly 44 per cent., and local salt for the first time contributed more than half the total revenue, although this reached the record figure of nearly Rs. 33 lakhs. Experiments were made at the salt factories with a new type of furnace designed to secure greater economy in the use of fuel, and a scheme is under preparation by which certain defined forest tracts will be allotted to the different salt centres.

The cost of the salt establishment rose from Rs. 43,758 to Rs. 64,902 and the percentage of cost to revenue in the direct duty districts from 3·33 to 3·83. The increased cost is due to the larger establishment entertained in consequence of the increase in production.

Supplies of salt.

146. The course of prices of the various types of imported salt and of Burma salt has been already described in detail in paragraph 115 of this Report. The average wholesale price of imported salt varied from Rs. 3-2-6 to Rs. 3-12-4 per maund, while the average price of Burma salt was Rs. 3-0-1 as compared with Rs. 2-13-0 in the previous year. Omitting three exceptional districts, the average retail price of all salt, including both imported and Burma varieties, rose from Rs 4-7-3 per maund to Rs 4-12-4, which is the highest figure so far recorded. The estimated consumption of the Province also was the highest on record, and rose from 2,270,865 maunds to 2,657,575 maunds, which is 17 per cent. above last year's consumption and 9 per cent. above the average. The consumption of Burma-made salt increased by 295,248 maunds, or 26 per cent., while that of imported salt increased by 91,462 maunds, or nearly 8 per cent.

The high prices caused by the shortage of shipping and consequent scarcity of imported salt greatly stimulated the production of Burma salt; the number of licenses in the direct duty districts rose from 289 to 434, and those under the composition system also increased from 911 to 1,042. Direct duty increased from Rs. 13·14 lakhs to Rs. 16·94 lakhs, while composition duty fell from Rs. 38,982 to Rs. 36,385. The total revenue from Burma-made salt thus rose from Rs. 13·53 lakhs to Rs. 17·31 lakhs, which is by far the highest figure ever recorded. Customs duty on imported salt, including salt fish, also increased from Rs. 14 57 lakhs to Rs. 15·67 lakhs, and the combined revenue from Burma-made and imported salt rose from Rs. 28·10 lakhs to Rs. 32·97 lakhs.

Excise—General.

147. The effects of the war were still visible in a further decrease in consumption of imported alcoholic liquor. This was counterbalanced by increased licit consumption of country alcoholic liquor and of Burma-brewed beer, the revenue from which reached record figures. The duty on beer remained at $4\frac{1}{2}$ annas per gallon, and that on imported spirit at Rs. 11-4 per London proof gallon, but that on contract distillery spirit was revised and raised throughout the Province. The tree-tax experiment mentioned in last year's Report was continued in the Prome District, and extended to the remaining districts of the Pegu Division and to the Henzada District. Daily allowances of opium were revised throughout the Province, with the result that issues of opium slightly decreased. Seizures of opium and cocaine continued to decline, the former owing to increased demand from China, and the latter owing to the stoppage of supplies from Germany. New Excise Directions were issued during the year.

The gross receipts for the year amounted to the record figure of Rs. 96·95 lakhs as compared with Rs. 9·27 lakhs in the previous year, or an increase of 5·1 per cent. Revenue from alcoholic liquor rose from Rs. 49·23 lakhs to Rs. 53·59 lakhs, the increase being attributable to increased licit consumption of liquor made in the Province. There was also a slight increase in the receipts from opium, which rose from Rs. 42·14 lakhs to Rs. 42·47 lakhs. The total expenditure on the combined establishment for excise and salt rose from Rs. 12·56 lakhs to Rs. 12·80 lakhs, expensive repairs to a launch in the Akyab District and the construction of a tramway for salt purposes in the Amherst District accounting for the greater part of the increase. The net demand for the year was Rs. 1,02·86 lakhs. Of this amount Rs. 172 were outstanding at the end of the year, but on the other hand, Rs. 10,101 were collected in advance for the coming year, making the gross realisations Rs. 1,03·00 lakhs. The difference between this figure and the gross receipts of Rs. 96·95 lakhs represents the cost price of the issues of excise opium at Rs 13 per seer.

The strength of the staff employed in connection with salt was increased and the Rail and River charge was abolished, its staff being allocated to the Mandalay, Kyaukse and Meiktila Districts. The total number of arrests and convictions for offences of all classes against the excise and opium laws fell by 10 per cent. to 10,264 and 8,271, respectively. More active assistance was rendered by the police and by village headmen.

Excise: Opium.

148. Owing to a revision of the wholesale price of opium to vendors, the net gain on issues of excise opium to vendors increased from Rs. 41·13 lakhs to

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Rs. 41·43 lakhs, and owing to a revision of license fees payable by retail vendors, receipts from this source also increased from Rs. 1·01 lakhs to Rs. 1·04 lakhs.

The quantity of opium issued to shops fell from 47,675 seers to 47,350 seers. Half the districts showed increases and the other half decreases. Sales increased by 12·5 per cent. in the Pegu District, owing to an influx of Chinese consumers, by 12 per cent. in the Toungoo District, owing to an increased proportion of sales of prepared opium, and by 10 per cent. in the Tavoy District, owing to an increase of labour at the wolfram mines. The incidence of consumption per 1,000 of the population fell from 4·52 to 4·49 seers. Increased attention was devoted to the revision and regulation of allowances with satisfactory results. Chinese Advisory Committees for fixing the allowances of consumers were of service in the Thatôn District, but the experiment was not a success in the three other districts in which it was tried. Scarcity of shipping and the great demand and high prices offered in China combined to cause a diminution in the smuggling of opium from all sources. Hawking was kept well in hand, and illicit opium generally cost three or four times the price of the same amount of licit opium. Opinions are divided as to whether the taste for opium is declining, but it is probable that the young Burman takes to drink rather than to opium.

The normal wholesale price of excise opium to licensed vendors was, with one exception, fixed at the uniform rate of Rs. 100 per seer throughout the Province, this rate being modified on a definite sliding scale dependent on the size of the allotments of opium made to individual vendors. Except in the case of one remote shop, the retail price to consumers was also made uniform at Re. 1-6 per tola of raw opium (Rs. 110 per seer) and Re. 1-11 per tola of cooked opium (Rs. 135 per seer). In 25 districts opium was sold both raw and prepared, and in seven districts raw only. The policy of selling only prepared opium to smokers was carried into effect in all places in which facilities for the preparation of opium existed. Licenses for retail vend were 124 in number, or the same figure as in the previous year, but the revenue from license fees, which are fixed at a quarter of the estimated gross profit, rose from Rs. ·97 lakh to Rs. ·99 lakh. Though the net profits of licensees fell by 26 per cent., owing to the increase in license fees and in the cost of the opium sold, the profits, which averaged nearly Rs. 150 per month per shop, were still sufficient to secure a suitable type of licensee. On the whole, the conduct of licensees was good and they gave a satisfactory amount of information regarding opium and excise offences.

The number of arrests and convictions under the Opium Act for illicit dealings in opium fell from 2,477 to 1,995 and from 2,030 to 1,660, respectively, while the percentage of convictions to arrests increased slightly from 82 to 83. The quantity of opium seized fell from 1,075 seers to 894 seers; the decrease was general and is attributable to the scarcity of imported illicit opium and to the continued scrutiny of allowances in the case of shop opium. The most important seizure of the year was one of 363 seers on board a steamer leaving for China, while information supplied to the authorities of Penang led to the seizure of 150 seers on board another steamer.

The allotment of secret service money was reduced from Rs. 6,942 to Rs. 4,374, and the amount expended fell from Rs. 4,208 to Rs. 2,556, of which Rs. 1,972 was spent in opium cases. The actual use made of the allotments was, however, greater than the expenditure indicates, as where rewards are given for information received in consequence of the expenditure the latter is recouped.

Excise: Liquors.

149. The total quantity of liquors of all sorts imported into Burma again fell from 454,883 gallons to 331,863 gallons, but their value rose from Rs. 26·43 lakhs to Rs. 28·62 lakhs, in consequence of increased taxation in countries of origin and of high freights. Imports of ale, beer and porter fell from 285,270 gallons to 169,358, and of wines from 17,259 gallons to 14,127, while those of potable spirit remained approximately the same at 148,226 gallons. Of ale, beer and porter, the United Kingdom and Japan supplied 95,402 and 71,662 gallons, against 124,065 and 155,711 gallons, respectively, in the previous year. Most of the whisky came from the United Kingdom, of the brandy from France, and of

the rum from Java. The clearances for consumption in Burma of brandy, gin, rum and whisky totalled 100,685 gallons against 102,407 in the previous year. The decreased imports of beer resulted in an increase in the output of the only brewery in the Province from 281,747 gallons to 346,416 gallons and the duty rose to the record figure of Rs. 98,238.

Burma foreign spirit, that is, liquor manufactured in the Province in imitation of imported liquors, was manufactured at two distilleries in Mandalay and Moulmein. The distillery at Toungoo, having failed to secure a contract for the manufacture of country spirit, ceased working during the year. The quantity of Burma foreign spirit (London-proof) issued on payment of the full duty of Rs. 11-4-0 per gallon rose from 11,572 gallons to 18,600 gallons; at the privileged rate (to troops and Military Police) of Rs. 3-8-3 per gallon from 16,996 gallons to 17,368; and the amount of duty realised rose from Rs. 1·92 lakhs to the record figure of Rs. 2·73 lakhs. From these figures it is clear that the consumption of locally-made foreign spirits is greatly on the increase at the expense of the imported article. The number of wholesale licenses for the sale of foreign liquors including imported liquor and local liquor excised at the tariff rate was 91 as in the previous year. The number of licenses for the retail vend of foreign liquor in public houses fell from 163 to 156, while that of special licenses in hotels, railway refreshment rooms and similar establishments rose from 151 to 157. License fees for the sale of beer fell from Rs. 21,058 to Rs. 15,653 and for the sale of other foreign liquors from Rs. 5·47 lakhs to Rs. 4·24 lakhs. The decrease in the former is due to the decrease in the number of licenses issued, and in the latter to the continued decline in the foreign liquor trade.

The system of supply of country spirit to licensees was, as in previous years, the "Contract Distillery" system. The Salween District was added to the districts under this system, which otherwise remained unchanged. A comprehensive revision of duty came into operation with effect from the beginning of the year of report. The distiller's price, exclusive of duty, per London-proof gallon varied from Re. 1-8-0 to Rs. 2-10-0 and the duty per London-proof gallon varied from Re. 1-4-0 in the Bhamo and Myitkyina Districts to Rs. 9-1-0 in Rangoon Town. The result of the revision of duty was an increase in the average duty per London-proof gallon from Rs. 4-9-1 to Rs. 5-3-6. The issues in London-proof gallons increased from 81,620 gallons to 97,609 gallons, while the duty increased from Rs. 3·75 lakhs to Rs. 5·10 lakhs. Licenses for the vend of country spirit increased by 5 to 154 and the fees from Rs. 2·96 lakhs to Rs. 3·00 lakhs. There were 10 outstills and 21 shops licensed for the vend of outstill spirit in five districts, or a reduction of two stills and three shops as compared with the previous year. Receipts from this source fell from Rs. 20,800 to Rs. 17,530 and formed only 2·1 per cent. of the total receipts from country spirit.

The Madras tree-tax system of excising *tari* (toddy) was, as already mentioned, continued in the Prome District and extended to the other districts of the Pegu Division and to the Henzada District. An extension to the Thayetmyo District was also contemplated, but this was postponed, owing to the paucity of licensed shops. The experiment was, on the whole, successful, and in Rangoon and in the Tharrawaddy and Prome Districts it has reduced the illicit supply of *tari* and is reported to have led to a decrease in drunkenness and in crime due to drink. It has also led to a substantial increase of revenue. The tax on cocoanut palms and on palmyra palms remained unaltered at Rs. 3 per half year per tree and Rs. 2 per year per tree, respectively. The tax on talipots was fixed at Rs. 8 per tree per annum and that on the *dhani* palm (*Nipa fruticans*) at 8 annas per tree per annum. The latter grows on half-tide mud banks in the Hanthawaddy and Insein Districts and is largely tapped for *tari*. The revenue from *tari* in the seven districts under tree-tax increased from Rs. 2·11 lakhs to Rs. 2·61 lakhs. Licenses for the sale of *tari* were issued in the same districts as in the previous year, but they fell in number from 616 to 606. License fees, however, rose from Rs. 7·97 lakhs to Rs. 8·59 lakhs, in spite of the extension of the tree-tax area, which caused a decrease of 21·7 per cent in the Hanthawaddy District.

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The issue of licenses for vend of country fermented liquor other than *tari* was confined to the same 15 districts in Lower Burma and five districts in Upper Burma as in the previous year. Their number remained the same, namely 366, while the revenue further increased from Rs. 25·94 lakhs to Rs. 28·23 lakhs, which is the highest figure yet recorded. The increase is due to the high price of foreign spirit and beer with which this liquor competes. A large number of samples, both of the liquor and the yeast, were tested by the Chemical Examiner for Customs and Excise at Calcutta, with satisfactory results.

All Municipal and Town Committees continued to act as Excise Advisory Committees during the year and new programmes for the three years beginning on 1st May 1919 were drawn up by these bodies. In only one instance was a proposal made by any such Committee rejected. Outside municipalities and towns local opinion was consulted on proposals to open new shops.

Seizures of country spirit rose from 1,763 gallons to 2,155 gallons, while those of *tari* fell from 4,614 gallons to 3,242 gallons, and of other country fermented liquor from 19,447 gallons to 18,508 gallons. Seizures of foreign liquor were as usual small; those of spirit fell from 56 to 25 gallons, and those of fermented liquor rose from 81 to 107 gallons. For offences relating to country spirit the number of arrests and convictions rose from 2,191 and 1,787 to 2,629 and 2,117, and the percentage of convictions to arrests fell from 82 to 81. There was a marked increase in the Thatôn District, where a special effort against illicit distillation was made. For offences relating to country fermented liquor of all classes the number of arrests fell from 4,973 to 4,543, of convictions from 4,072 to 3,642, and the percentage of convictions from 82 to 80. Convictions for drunkenness declined from 3,785 to 3,096, but no satisfactory reason can be given for the decrease. The number of cases reported in which intoxicating liquor was the cause of or contributory to crime rose from 330 to 393. In Lower Burma 35 per cent. of such crime and in Upper Burma 75 per cent. was due to drink obtained from illicit sources or uncontrolled areas.

Ganja, Cocaine and Morphia.

150. The number of licenses issued for the possession of hemp drugs for veterinary purposes rose from 20 to 23. The quantity seized during the year rose from 165,896 tolas to 242,997 tolas, or over 2¾ tons. Convictions of all kinds in connection with these drugs fell from 721 to 640. No case was reported during the year of Burmans using hemp, and its use is confined to Indians who are accustomed to its licit use in their own country. Proposals for legalising the use of these drugs were still under consideration.

The number of pharmacists' licenses for the vend of cocaine rose by 2 to 45. Seizures fell by 84 per cent. to 52,595 grains, and convictions by 73 per cent. to 109. There was one large seizure of German cocaine in Rangoon, but most of the drug seized was of Japanese origin.

Pharmacists' licenses for the vend of morphia rose by 6 to 51. Seizures fell by 97 per cent. to 1,194 grains, and the number of convictions from 121 to 10, the only two districts affected being Rangoon Town and Prome.

Stamps.

151. There were no changes in the year of report in the law relating to court-fees or stamps, but remission of stamp duty was allowed in the case of receipts granted by holders of Post Office Cash Certificates at the time of their discharge, and also in the case of receipts given for pensions and allowances payable by Government to the heirs of deceased non-commissioned officers or soldiers in respect of service in His Majesty's Army or in His Majesty's Indian Army.

Gross receipts under the Court-fees Act and the Stamp Act rose from Rs. 31·82 lakhs to Rs. 34·78 lakhs. The whole increase was contributed by sales under the Stamp Act, receipts under the Court-fees Act remaining stationary. The appreciable increase in receipts from non-judicial stamps was shared by 26 districts, the increase of nearly Rs. 1 lakh being recorded in Rangoon alone. Improvement in the export trade accounted for the increase in Foreign Bill stamps, whilst improvement in the money market was responsible for the increases from *hundis* (inland bills of exchange) and from share transfer stamps. There were also

numerous transactions in immoveable property, more especially in Rangoon, where it is said that Indian merchants who had made large profits invested extensively in land on finding commercial avenues closed The total revenue from non-judicial stamps thus rose from Rs. 13·36 lakhs to Rs. 16·32 lakhs. Receipts on account of judicial stamps amounted to Rs 18·46 lakhs and decreases in 17 districts were counterbalanced by increases in the remaining districts.

The number of licensed stamp vendors fell slightly from 2,159 to 2,117, but the amount of discount earned by them rose from Rs 38,860 to Rs. 49,992, consequent on the increased sale of non-judicial stamps.

The number of cases of unstamped or insufficiently stamped instruments dealt with under section 35 of the Stamp Act fell from 784 to 766 and the duty and penalty realised from Rs. 8,012 to Rs. 7,750. Those dealt with by Collectors also fell from 439 to 378 and the duty and penalty realised in such cases from Rs. 16,049 to Rs. 8,681. The number of persons tried for offences against the Stamp Law rose from 17 to 45, of whom 38 were convicted. The amount of fines imposed increased from Rs. 394 to Rs 580 and of rewards disbursed from Rs. 987 to Rs. 1,047. The number of cases in which inquiries into the valuation of estates were instituted rose from 299 to 415, but the amount of deficit court-fees levied fell from Rs. 14,470 to Rs. 4,810. The amount paid as deficit court-fees in 1917-18 was, however, abnormal and included a sum of Rs. 10,207 in a single case in Rangoon.

Charges on account of discount on and establishment for the sale of stamps rose from Rs. 52,027 to Rs. 63,926; refunds from Rs. 31,866 to Rs. 45,657, and the total charges from Rs. 86,147 to Rs. 1,12,108. The net receipts rose from Rs. 30·96 lakhs to Rs. 33·66 lakhs. These figures do not include the cost of general supervision, which rose from Rs. 24,082 to Rs. 25,236; or the cost of stamps, which rose from Rs. 8,139 to Rs. 8,873.

Assessed taxes.

152. The Income-tax Act was extended during the year to all the Shan States, but is not yet in full operation. During the year the appointment of a whole-time Collector of Income-tax for Rangoon was sanctioned by the Secretary of State for India, with the result that considerable improvements were effected in the working of the office and a very large increase of tax was obtained. A new system for the assessment of Chetties was introduced into Rangoon with satisfactory results, the Chetties being assessed on the basis of certain figures supplied to the Collector by a Committee of members of the community.

The Indian Income-tax Act, 1918, was brought into force during the year, and new rules and forms thereunder were issued. The Act was amended by the Indian Income-tax (Amendment) Act, 1919, which repealed the provisions relating to summary assessment and raised the limit of assessment to Rs. 2,000. Special instructions were issued during the year regarding the assessment of Nattukottai Chetties trading in Burma, and the Madras Government will in future decide as to the principal place of business of all firms trading in both provinces.

Under the head "Tax on Salaries, Pensions and Gratuities paid by Government" the number of assessees fell by 114 to 5,904, but the amount collected rose from Rs. 5·52 lakhs to Rs. 5·60 lakhs. The total amount collected from assessees with incomes of less than Rs. 2,000 and who will in future be exempt from assessment was Rs. ·86 lakh.

Under the head "Tax on Interest on Securities" the amount collected rose from Rs. ·84 lakh to Rs. 1·02 lakhs and the value of the securities taxed from Rs. 4,74 lakhs to Rs. 5,00 lakhs. Securities of the Government of India increased by nearly Rs. 5 lakhs and those of private companies by Rs. 22·52 lakhs.

Under the head "Tax on Salaries, Pensions and Gratuities paid by Local Authorities" the number of assessees increased by only 6 to 931, but the amount collected rose from Rs. 59,331 to Rs. 64,909.

Under the head "Tax on Salaries paid by Companies and other Private Employers" the number of assessees rose from 6,492 to 7,130 and the amount of tax collected from Rs. 5·99 lakhs to Rs. 6·91 lakhs. Rangoon was responsible for Rs. 81,345 out of the total increase of Rs. 92,113.

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Under the head "Tax on Profits of Companies" the number of companies assessed fell by 20 to 55, but the amount of tax rose from last year's record figure of Rs. 18·94 lakhs to Rs. 33·15 lakhs. The large increase in the amount of tax is due to the fact that several companies, whose registered offices are in England, were assessed for the first time on the whole of the profits arising from their trade in India.

When the classification under the new Act is completely understood, the head "Tax on other sources of income" will become relatively unimportant, but this year in many districts it still included most of what it included under the old Act. The amount collected was Rs. 15·49 lakhs as against Rs. 14·47 lakhs in the previous year, but a comparison of the figures is of little value. In Rangoon, where the classification is more complete than elsewhere, the number of assessees fell from 9,083 to 2,653 and the amount of tax from Rs. 32·30 lakhs to Rs. 7·84 lakhs.

The total number of assessees rose from 28,949 to 29,222 and the net collections, including a sum of Rs. 2·31 lakhs on account of arrears of the previous year, amounted to Rs. 64·97 lakhs as against Rs. 46·36 lakhs in 1917-18. The increase in the collections was almost entirely in Rangoon, and was due to more efficient working, consequent on the appointment of a whole-time Collector of income-tax. The number of petitions and objections decreased considerably from 4,245 to 2,484 and the consequent reduction in assessment was only 2 per cent. as compared with 10 per cent. in the previous year. Expenditure rose from Rs. 61,356 to Rs. 66,597, but most of the work is done by establishments, whose salaries are charged to other heads. Refunds fell from Rs. 96,261 to Rs. 33,357. Of last year's outstandings amounting to Rs. 2·76 lakhs, a sum of Rs. 2·31 lakhs was collected during the year. The balance outstanding at the end of the year of report was Rs. 5·94 lakhs, of which Rs. 5·62 lakhs were in Rangoon. The large increase is due to the dislocation caused by the new Act and consequent delay in assessment. The tax was collected without difficulty and the number of penalties inflicted by Collectors fell from 230 to 119.

There was a very large rise in the amount of super-tax collected from Rs. 1·57 lakhs to Rs. 10·80 lakhs, the increase being due to more efficient administration in Rangoon.

(*b*) *REVENUE AND FINANCE OTHER THAN IMPERIAL.*

Provincial Receipts and Expenditure.

Provincial receipts.

153. The net increase of Rs. 92·97 lakhs in Provincial receipts was the result of a gross increase of Rs. 93·64 lakhs and a gross decrease of Rs. ·67 lakh, of which the head Jails accounted for Rs. ·61 lakh. The principal contributors to the gross increase were the heads "Land Revenue" (Rs. 63·57 lakhs), "Income-tax" (Rs. 8·96 lakhs), "Transfers between Imperial and Provincial" (Rs. 8·84 lakhs), "Excise" (Rs. 2·29 lakhs), "Stamps" (Rs. 1·48 lakhs), "Ports and Pilotage" (Rs. 2·00 lakhs), "Police" (Rs. 1·69 lakhs) and "Forests" (Rs. 1·67 lakhs). As the revenue under all these heads, except the three last-mentioned, is divided between Imperial and Provincial Funds in accordance with the terms of the Provincial Settlement, the causes of increase have been already dealt with in the earlier portion of this Chapter. The increase under the head "Ports and Pilotage" was due partly to compensation paid by the Military Department for certain launches impressed for service in Mesopotamia, and partly to better receipts from coast-light dues. Forest revenue increased, owing to large supplies of teak being furnished to the Royal Indian Marine and to the Eastern Bengal State Railway. Some outstandings were also recovered from the Admiralty, and there was an expansion of departmental fuel extraction, though this was to some extent counter-balanced by smaller outturns of timber by lessees. The increase under the head "Police" was due to larger recoveries on account of punitive police and to increased receipts on account of fees, fines and forfeitures. The sale-proceeds of articles of jail manufacture declined, owing to a decrease in the jail population.

Provincial expenditure.

154. The net increase of Rs. 33·42 lakhs in Provincial expenditure was the result of a gross increase of Rs 40·84 lakhs, mainly under the heads "Police," "Land Revenue," "Education," "Superannuation and Retired Allowances," "Ports and Pilotage," "Forests," "Medical," "Stationery and Printing" and "Agriculture" and of a gross decrease of Rs 7·4 lakhs, chiefly under the heads "Civil Works" and "Courts of Law." The expenditure under "Police" rose by Rs. 10·93 lakhs, owing to the Kuki operations and also owing to the creation of two temporary ranges under the charge of Additional Deputy Inspectors-General. The increase of Rs. 10·24 lakhs under the head "Land Revenue" was due to payment of commission on collections deferred from the year 1917-18 An increase of Rs. 7·07 lakhs under "Education" is accounted for, partly by payment of the Imperial grant for the Burma University, and partly by contributions to Local Funds, on account of Vernacular Schools transferred to them. The increase of Rs. 2·39 lakhs in "Superannuation Allowances" is due to the usual growth of pensionary charges and also to larger payments of the commuted value of pensions. Expenditure under the head "Ports and Pilotage" increased by Rs. 2·17 lakhs and under "Stationery" by Rs. 1·20 lakhs owing to the increased cost of material. Forest expenditure rose by Rs. 2·05 lakhs owing to increased departmental extraction of timber for the Admiralty and of fuel for commercial purposes. Larger grants for hospitals and dispensaries and larger expenditure on the salaries of officers account for an increase of Rs. 1·72 lakhs under the head "Medical." An increase of Rs. 1·08 lakhs under the head "Agriculture" was due to the acquisition of land for the extension of the Victoria Memorial Park in Rangoon. Expenditure on "Civil Works" decreased by Rs. 3·2 lakhs, owing to a smaller outlay on civil buildings and establishment. A decrease of Rs. 1·08 lakhs under "Courts of Law" was mainly due to smaller expenditure on the salaries of the establishment and on the allowances of witnesses.

Forests.

155. The Forest Department Report deals with the year ending on the 30th of June 1919, and the figures of revenue and expenditure given in it therefore differ from those compiled in the Finance Department The gross revenue of the year ending the 30th June 1910 rose from Rs. 1·26·6 lakhs to Rs 1·29·48 lakhs. There was an increase in revenue in Lower Burma and a decrease in Upper Burma, due in the former case to increased departmental sales, and in the latter to decreased outturn of teak, owing to lessees holding up logs for want of freight to outside markets There was a substantial increase in the revenue derived both from timber and other produce extracted by Government agency the revenue from timber rising by Rs. 6·06 lakhs to Rs. 32·59 lakhs and that from other produce, including fuel, by no less than Rs. 5·80 lakhs to Rs 7·99 lakhs. The revenue from timber extracted by consumers, on the other hand, declined by Rs. 11·70 lakhs to Rs. 71·45 lakhs, owing to shortage of shipping.

Expenditure rose from Rs. 52·8 lakhs to Rs. 59·93 lakhs, the increase being mainly due to more extensive exploitation by departmental agency. The surplus of revenue over expenditure amounted to Rs. 60·54 lakhs or 54 per cent. of the gross revenue, as compared with Rs. 74 lakhs, or 58 per cent. of the gross revenue in the previous year. The decrease in net revenue is due, partly to an abnormal number of Government teak logs of an estimated value of Rs. 51 lakhs being held up in transit in the Pegu Circle, and partly to lessees in Upper Burma similarly holding up logs and purposely leaving trees unfelled.

Local Funds.

District Cess Funds.

156. A District Cess Fund is maintained for local purposes in each of the 21 districts in Lower Burma. No change took place in the number or constitution of these funds. Their aggregate receipts rose from Rs. 38·05 lakhs to Rs. 46·15 lakhs. "Provincial Rates" rose from Rs. 19·40 lakhs to Rs. 27·96 lakhs, owing to the realisation during the year of report of the arrears of land revenue due in 1917-18, but collection of which was postponed, owing to the difficulty of sale of the rice crop. Receipts under the head "Civil Works" fell from Rs. 8·88 lakhs

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to Rs. 8·37 lakhs, owing to smaller contributions being given to the Funds of the Tavoy and Mergui Districts.

The aggregate expenditure of these Funds fell from Rs. 45·19 lakhs to Rs. 44·46 lakhs. Expenditure under the head "Debt Accounts" fell from Rs. 2·81 lakhs to Rs. 1·43 lakhs, owing to smaller investments in the Indian War Loan, and there was also a decrease from Rs. 22·96 lakhs to Rs. 22·08 lakhs in the expenditure on "Civil Works in charge of Officers of the Public Works Department," owing to smaller outlay, mainly in the Irrawaddy Division. Expenditure on "Provincial Rates" rose by Rs. ·61 lakh to Rs. 1·07 lakhs, owing to payment of commission on the collections of land revenue postponed from 1917-18, and there was an increase from Rs. 1·18 lakhs to Rs. 1·53 lakhs under the head "Sanitation," owing to increased expenditure on vaccination. Larger outlay on improvements to towns and on the acquisition of land for public purposes was responsible for an increase from Rs. 1·06 lakhs to Rs. 1·31 lakhs under the head "Civil Works in charge of Civil Officers."

All the funds were solvent at the end of the year and their aggregate closing balance rose from Rs. 19·37 lakhs to Rs. 21·06 lakhs.

District Funds.

157. A District Fund is maintained for local purposes in each of the 16 districts in Upper Burma. These funds are not endowed, as the Lower Burma District Cess Funds are with a cess on land revenue, but derive their income from various sources, such as bazaar-rents, slaughter-house licenses, ferries and contributions from Provincial funds. Their aggregate receipts during the year rose from Rs. 12·67 lakhs to Rs. 23·73 lakhs, the very large increase of Rs. 11·06 lakhs being due to enhanced contributions from Provincial Funds under the heads "Civil Works in charge of Civil Officers" and "Education." In the case of "Education" increased contributions were necessitated by the decision of Government to transfer the administration of Vernacular Education to local bodies.

The aggregate expenditure of these funds rose from Rs. 12·60 lakhs to Rs. 16·34 lakhs, the increase being almost entirely due to larger expenditure on "Education," consequent on the above-mentioned transfer of Vernacular Education There was a decrease of Rs ·56 lakh under the head "Miscellaneous," owing to smaller contributions to Municipal and other Local Funds, but other fluctuations were unimportant. All District Funds were solvent at the end of the year and their aggregate closing balance rose from Rs. 2·87 lakhs to Rs. 10·27 lakhs.

Other Funds.

158. The other local funds in Burma comprise the Cantonment, Town, Port, Pilot, Educational Syndicate, Rangoon Police Reward, Boiler Inspection and Burma University Funds.

The number of Cantonment Funds was seven as in the previous year in Rangoon, Mandalay, Meiktila, Shwebo, Thayetmyo, Maymyo and Bhamo. Their aggregate receipts rose from Rs. 2·14 lakhs to Rs 2·35 lakhs and their aggregate expenditure from Rs. 2·01 lakhs to Rs. 2·28 lakhs. In Rangoon the income rose from Rs ·84 lakh to Rs. 1·02 lakhs, owing to the sale of a building and to increased revenue from "Assessed Taxes," while expenditure increased from Rs. ·81 lakh to Rs ·90 lakh, the increase being common to all heads. In Mandalay the receipts rose from Rs 71,022 to Rs. 90,179 and expenditure from Rs 70,473 to Rs. 88 136, mainly owing to larger outlay on "Public Works." In Meiktila the receipts and expenditure were Rs. 7,601 and Rs. 8,335 as against Rs. 9,064 and Rs. 10 142, respectively, in the previous year. In Shwebo also the receipts and expenditure both fell from Rs. 6,127 to Rs. 5,963 and from Rs. 6,634 to Rs. 6,145, respectively In Thayetmyo the income fell from Rs. 11,625 to Rs 3,379, owing to smaller receipts under the head "Land Revenue" and to the non-receipt of grants from the General Officer Commanding. On the other hand, expenditure rose slightly from Rs. 6,472 to Rs. 7,345. In Maymyo the income fell by Rs. 3,486 to Rs. 15,629, owing to small grants being received from the General Officer Commanding, but the expenditure rose from Rs. 18,098 to Rs. 18,473. In Bhamo the receipts and expenditure were Rs. 9,840 and Rs. 9,854 as against Rs. 13,090 and Rs. 8,392, respectively, in the previous year. The decrease in receipts was due to a considerable reduction in the amount of grants made by

the General Officer Commanding. All Cantonment Funds were solvent at the end of the year and their aggregate closing balance rose from Rs. 38,580 to Rs. 46,767.

The number of Town Funds was 22 as in the previous year. The total income of these funds rose from Rs. 9·69 lakhs to Rs. 9·74 lakhs and their total expenditure from Rs. 8·63 lakhs to Rs. 10·97 lakhs. Increased Government contributions for educational purposes were mainly responsible for increased receipts in the case of the Nattalin, Yenangyaung, Meiktila, Pyawbwè, Pyu, Kalaw and Mawlamyainggyun Town Funds, while reduced contributions from Government accounted for decreased receipts in the cases of Zigôn and Danubyu. In Maymyo there was also a marked decrease in income, owing to smaller receipts under debt heads. The expenditure of the year exceeded the receipts in the case of 12 Town Funds and the aggregate closing balance consequently fell from Rs. 4·68 lakhs to Rs. 3·44 lakhs. All the Town Funds were, however, solvent at the close of the year.

Excluding the Rangoon Port Trust, there were as before six Port Funds at Bassein, Moulmein, Akyab, Mergui, Tavoy and Kyaukpyu. Their total receipts and expenditure were Rs. 4·40 lakhs and Rs. 4·18 lakhs as compared with Rs. 3·95 lakhs and Rs. 3.63 lakhs, respectively, in the previous year. There was an increase of receipts in all funds, except Tavoy, and an increase of expenditure in all, except Mergui. The aggregate closing balance of these funds rose from Rs. 2·42 lakhs to Rs. 2·64 lakhs. The debt due to Government by the Moulmein Port Fund fell from Rs. ·52 lakh to Rs. ·46 lakh and by the Tavoy Port Fund from Rs. ·67 lakh to Rs. ·52 lakh.

As in the preceding year, there were four Pilot Funds at Rangoon, Akyab, Bassein and Moulmein. Their receipts were derived chiefly from pilotage-fees, and the expenditure consisted mainly of cost of maintenance of pilot vessels and payments to pilots. The ordinary receipts of the Rangoon Pilot Funds rose from Rs. 2·91 lakhs to Rs. 3·69 lakhs, and the ordinary expenditure from Rs. 2·92 lakhs to Rs. 3·57 lakhs. With the object of improving the financial stability of this fund revised rates of pilotage-fees were introduced with effect from the 1st June 1919. The amount at the credit of the reserve fund known as the "Pilot Vessels' Depreciation Fund" rose from Rs. 2·26 lakhs to Rs. 2·35 lakhs. The aggregate receipts of the other three funds rose from Rs. ·90 lakh to Rs. ·95 lakh, but their aggregate closing balance fell from Rs. 12,403 to Rs. 10,830, owing to expenditure exceeding receipts in the case of the Bassein Fund.

The receipts and expenditure of the Rangoon Police Reward Fund were Rs. 349 and Rs. 286, respectively, as against Rs. 509 and Rs. 493 in the previous year. The receipts of the fund consisted of fines recovered from policemen and undisbursed rewards and were utilised in rewarding good service on the part of policemen.

The receipts of the Steam-boiler Inspection Fund rose from Rs. ·81 lakh to Rs. 1·03 lakhs and the expenditure from Rs. ·75 lakh to Rs. 1·68 lakhs. The receipts were derived mainly from inspection and examination fees, and the expenditure chiefly represented establishment charges. The closing balance of the fund fell from Rs. ·89 lakh to Rs. ·24 lakh.

The income of the Educational Syndicate Fund rose from Rs. 51,605 to Rs. 52,608, of which Rs. 21,800 was contributed by Government and Rs. 500 by the Rangoon Municipality, and the rest was derived from examination fees, etc. The expenditure fell slightly from Rs. 53,143 to Rs. 52,711 and the closing balance also declined by Rs. 102 to Rs. 15,472.

The Burma University Fund was constituted during the year, but there were no transactions and the opening and closing balances were the same, namely Rs. 3·78 lakhs.

Road and Education Cesses.

159. In Burma petty local public works are carried out and contributions to the cost of education are made by the District Cess and District Funds reported on in paragraphs 156 and 157. No special cesses for these purposes are levied in the Province.

CHAP. V.—REVENUE AND FINANCE.

Municipal Revenues.

Rangoon Municipality.

160. The gross receipts of the year of report, including the opening balance of Rs. 1·91 lakhs, rose from Rs. 48·86 lakhs to Rs. 54·58 lakhs. Excluding the opening balance, advance and deposits, the total ordinary income of the year was Rs. 48·92 lakhs and exceeded the total ordinary receipts for 1917-18 by Rs. 2·61 lakhs. The increase was principally due to larger receipts on account of rates and taxes, rents of land and houses, fees from markets and slaughter-houses, pawnshop license fees and interest on sinking fund investments.

The gross expenditure amounted to Rs. 52·43 lakhs and exceeded that of the previous year by Rs. 5·48 lakhs. Excluding charges on works paid from loans and the figures under the suspense account, the ordinary expenditure of the year amounted to Rs. 43·23 lakhs as compared with Rs. 41·14 lakhs in the preceding year. The amount advanced from revenue during the year to finance works for which loans are to be raised was Rs. 4·85 lakhs, thus raising the total of such advances to Rs. 24·19 lakhs. The closing balance was Rs. 2·12 lakhs.

The fluctuations under the various detailed heads of income and expenditure have been already explained in paragraph 70 of this Report.

Excluding loans raised for the Town Lands Reclamation Fund the loans outstanding at the close of the financial year fell from Rs. 1,31·15 lakhs to Rs. 1,30·58 lakhs. The yearly instalment of Rs. 57,500 towards the repayment of the loan of Rs. 23 lakhs raised in 1887 was paid during the year. The loan charges for the year rose from Rs. 10·06 lakhs to Rs. 10·27 lakhs, and included, besides the instalment already mentioned, Rs. 5·78 lakhs of interest, Rs. 2·83 lakhs of Sinking Fund and Rs. 8,839 of management charges.

From the amount available for the annual investment for sinking funds and the interest realised on securities the Municipality purchased Indian War Loan 5 per cent. bonds of the face value of Rs. 15,900 and Indian War Loan 5½ per cent. bonds of the face value of Rs. 3,66,600. The face value of the securities in the sinking fund (excluding those of the sinking fund for reclamation loans) at the end of the year rose from Rs. 36·71 lakhs to Rs. 40·53 lakhs. Owing to depreciation of securities, there was a deficiency of Rs. 5·31 lakhs in the sinking funds constituted for the repayment of Municipal and Reclamation Fund loans. In view of the uncertainty as to the probable future course of prices of Government paper, and as to the rate of interest that will be earned by future investments in the Sinking Funds, it was decided to make full provision for the repayment of loans maturing between 1920 and 1923, and to defer consideration of the deficiencies in the Sinking Fund for loans due for repayment in subsequent years until more experience of the actual working of *post-bellum* conditions has been gained.

The sum of the loans raised for reclamation purposes remained at Rs. 60·50 lakhs and the amount in the sinking fund rose from Rs. 13·95 lakhs to Rs. 16·39 lakhs. Receipts for the year of report fell from Rs. 9·17 lakhs to Rs. 6·55 lakhs, including a contribution of Rs. 5·80 lakhs from the Land Sale and Rent Fund, and the total expenditure rose from Rs. 7·19 lakhs to Rs. 8·05 lakhs, of which Rs. 2·63 lakhs were spent on works, Rs. 2·55 lakhs on interest and management of loans and Rs. 2·75 lakhs on sinking fund investments. The drop in receipts was mainly due to no contribution being received from Provincial funds during the year of report as against Rs. 2·37 lakhs in the previous year. The increase in expenditure was due to larger outlay on works and to larger investments in the Sinking fund. The closing balance at the end of the year fell from Rs. 2·88 lakhs to Rs. 1·38 lakhs.

Other Municipalities.

161. Excluding debt accounts amounting to Rs 1·98 lakhs and opening balances amounting to Rs. 16·80 lakhs, the aggregate ordinary income of the 44 Municipalities in the Province (omitting Rangoon) rose from Rs. 44·24 lakhs in 1917-18 to Rs. 50·57 lakhs in the year of report, this being the highest figure recorded during the past 17 years. The income derived from municipal rates and taxes rose from Rs. 18·73 lakhs to Rs. 19·99 lakhs; that derived from municipal property and powers apart from taxation from Rs. 19·92 lakhs to Rs. 20·86 lakhs, including Rs. 17·32 lakhs realised from markets and slaughter-house fees; that

from grants and contributions from Rs. 4·42 lakhs to Rs. 8·45 lakhs; that realised under special acts from Rs. ·59 lakh to Rs. ·61 lakh and that under "Extraordinary and Debt" fell from Rs. 2·54 lakhs to Rs. 1·98 lakhs. Increased grants and contributions from Government for general, educational and medical purposes were mainly responsible for the increase of approximately Rs. 6 lakhs in the total income. Variations under other heads of revenue in individual municipalities were unimportant. Arrears of taxes outstanding at the close of the year fell from Rs. 41,746 to Rs. 38,553, including Rs. 10,872 in Toungoo, Rs. 7,784 in Akyab and Rs. 5,824 in Mandalay.

The total ordinary expenditure of these minor municipalities rose from Rs. 41·99 lakhs to Rs. 42·59 lakhs. General administration and collection charges increased from Rs. 3·63 lakhs to Rs. 4·33 lakhs, chiefly owing to the refund by the Moulmein and Myingyan Municipalities of contributions received from Government for sanitary projects. Expenditure on "Public Health and Convenience" fell by Rs. 1·23 lakhs to Rs. 30·35 lakhs, mainly owing to the completion of the new hospital at Toungoo, on which a sum of Rs. 91,000 was spent in the previous year, and also owing to smaller expenditure on roads and bridges. Expenditure under the head "Public Instruction" rose from Rs. 1·83 lakhs to Rs. 2·74 lakhs, chiefly owing to increased educational expenditure by the municipalities of Upper Burma. Expenditure under the head "Extraordinary and Debt" fell from Rs. 4·82 lakhs to Rs. 4·10 lakhs, owing to the inclusion in the previous year's figures of the repayment of a loan of Rs. ·78 lakh by the Bassein Municipality.

Two cases of embezzlement and one case of temporary misappropriation of Municipal funds were discovered during the year, but the money lost was all recovered.

Other Funds.

162. Owing to the addition of a new fund during the year, there are now six Educational Endowment Funds, namely the Jardine, the Maung Ohn Ghine, the Renoung, the Coplestone, the U Po Hnit and the Hajee Esoof Bymeah Funds. These funds do not bank with Government and their accounts do not therefore appear in the Government books. The accounts of the Official Assignee are similarly excluded.

Paper Currency.

163. The average gross circulation of notes during the year rose from Rs. 6,24·57 lakhs to Rs. 9,52·44 lakhs. At the end of April 1918 the gross circulation was Rs. 6,99·98 lakhs; it fell to a minimum of Rs. 6,47·62 lakhs on the 29th June 1918, and rose to a maximum of Rs. 16,43·70 lakhs on the 7th February 1919. Excluding from the gross circulation the value of notes of the Rs. 10,000 denomination in order to arrive at the active circulation, the latter on the last day of each month averaged Rs. 8,77·06 lakhs as compared with Rs. 5,09·47 lakhs in 1917-18. The increase is due partly to the use of notes in place of silver for trade purposes and partly to a brisker trade in paddy. The percentage of circulation of notes of the Rs. 10 denomination to the circulation of all kinds of notes was 53·71 per cent. at the end of March 1919, as compared with 57·04 per cent. at the end of March 1918. The percentage of Rs. 100 notes to the total note circulation also fell from 37·19 on the 31st March 1918 to 29·28 on the 31st March 1919, and that of Rs. 1,000 notes from 2·85 to 1·42 per cent., but that of Rs. 5 notes rose from 1·95 to 3·31 per cent. Notes of the Re. 1 and Rs. 2-8 denominations were issued from the Currency Office for the first time towards the end of March 1918, and at the end of that month the total value of these notes in circulation was Rs. 1·02 lakhs. At the end of March 1919 the value of Re. 1 notes in circulation amounted to Rs. 1,42·91 lakhs and of Rs. 2-8 notes to Rs. 8·88 lakhs, and notes of these two denominations have supplied more than 11 per cent. of the total volume of currency.

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A noticeable feature of the year was the depreciation of paper currency throughout the Province. In view of the reduced stocks of silver, District Officers were requested to make every effort to conserve the rupee and half-rupee balances at treasuries and sub-treasuries by making free use of the new notes of the Re. 1 and Rs. 2-8-0 denominations, which were intended to replace rupees as far as possible in every-day transactions. Treasury balances in whole rupees were kept down to the lowest possible figure, and it was directed that every surplus rupee should be transferred to the currency chest, so that it might be available for remittance to Rangoon, if required for maintenance of the convertibility of notes at the Rangoon Currency Office, where alone a legal obligation rests on Government to meet its notes in silver. During the busy season telegraphic transfers were uniformly paid in notes, except where payment had to be made for wages of labour. Facilities for the encashment of notes at treasuries having at the same time been further curtailed, it was realised that some depreciation of paper money was unavoidable, and the policy adopted was to devise measures for the alleviation of distress amongst the poorer classes and to prevent discount on notes of the lower values as far as possible. In the beginning the discount on notes was confined to Upper Burma, where the note circulation had not hitherto made much headway, and the position was not serious during the slack season, the rate of discount being limited to about Rs. 2 per Rs. 100 and being more generally Re. 1 or Re. 1-4. But a large volume of notes having passed into circulation in payment of deliveries of paddy and other crops, the discount during the busy season became more general and rose to as much as 10 per cent. in some places. In order to minimise the hardship involved, District Officers were directed to keep the issue of silver under control and to see that their available stock was distributed in small quantities at a time. Encashment was permitted to the extent of Rs. 20 or Rs. 30 in the case of cultivators and other small holders, subject to a daily maximum limit of Rs. 100 for individual applicants, and from December 1918 onwards practically no rupees were released at treasuries for purposes of trade. The object of these measures was to restore confidence and thus to reduce the discount of notes of the smaller denominations. The preference given by cultivators to buyers who were in a position to pay in silver, was, however, a serious obstacle. Agricultural produce was sold at different rates, one for silver and the other for notes, the extra charge in the case of payments in paper being from 6 to 10 per cent. in some districts. For a time trafficking in silver, to be exchanged for notes in the interior of the Province, was carried on to a considerable extent by certain persons, who cashed notes in the Currency Office and then succeeded in conveying the silver into the districts by rail or steam-launch, in spite of the prohibition against its transport. This was a profitable business and the persons engaged therein endeavoured to maintain high rates of discount by playing on the fears and prejudices of ignorant people. The situation was also aggravated by a simultaneous scarcity of small coins, and a discount of 2 annas in the one-rupee note became general. The difficulty was, however, met to some extent by issuing larger supplies of small coin obtained from Calcutta, and in the month of June 1919 the position was that the demand for small coin in exchange for the one-rupee note was being fully met, both at Rangoon and at the District Treasuries

CHAPTER VI.

VITAL STATISTICS AND MEDICAL SERVICES.

REFERENCES—

Report on the Sanitary Administration of Burma for the year 1918.
Notes and Statistics on Hospitals and Dispensaries in Burma for the year 1918.
Report on the Working of the Burma Government Medical School, Rangoon, for the year 1918-19.
Report on the Working of the Pasteur Institute and Bacteriological Laboratory for the year ending 31st March 1919.
Note on the Lunatic Asylums in Burma for the year 1918.
Notes and Statistics on Vaccination in Burma for the year 1918-19.
Statistical Abstract for British India, Volume III.

Births and Deaths.

Area under registration and total dopulation.

164. The total area and population under registration remained the same as in 1917; but, owing to the constitution of Pyu and Mawlamyainggyun as notified areas, the rural population was reduced to 8,705,663, and the urban population raised to 1,118,727.

Number of births and deaths.

165. The total number of births registered was 324,308, or 31,828 less than in 1917. Towns returned 31,015 births, a decrease of 1,215; and rural areas 293,293, the deficiency being 30,616. The excess of male over female births was 7 per cent. in Lower Burma and 3 per cent. in Upper Burma. Fewer births than deaths were registered in nearly all districts, the excess of deaths being most marked in the Prome, Mandalay and Kyauksè Districts and in Rangoon Town. The provincial birth-rate was 33·01; that of Lower Burma 31·62 and of Upper Burma 35·29. Some part of the decrease in registered births was doubtless due to the influenza epidemic, which caused the death of many pregnant women. The rural birth-rates for the Province and for Lower and Upper Burma, respectively, were 33·69, 32·69 and 35·25, against 37·14, 36·99 and 37 37, the corresponding ratios for the previous year; and the urban rates for the corresponding areas were 27·72, 24·45 and 35·74 in 1918, against 27·07, 24·07 and 34·32, the means of the previous five years. The total number of deaths registered was 388,906, of which Lower Burma returned 239,225 and Upper Burma 149,681. The provincial total was 140,305 deaths above the return for 1917, and there was also a net increase on the previous five years' mean of 139,938. The enormous excess mortality was for the most part due to the influenza epidemic, which first became serious in July and continued to be responsible for heavy mortality till December. This heavy mortality raised the provincial death-ratio to 39·59, as compared with a five years' mean of 25·28. The provincial rural death-rate was 37·82, the Lower Burma rate 37·59, and the Upper Burma rate 38·17, and the increase over the mean of the previous five years, 13·91, 15·33 and 11·67, respectively. The provincial urban death-rate was 53·36, against the five years' mean of 36·17, a rise of 17·19. The Lower Burma urban death-rate, 49·95, showed a rise of 16·13 on the mean, and the Upper Burma rate, 61·71, a rise of 19·87. The provincial infantile mortality rate was 271·24, the rural rate was 264·49 and the urban 335·13. The Lower Burma rates were 242·75 (rural) and 290·57 (urban) and those of Upper Burma 295·99 (rural) and 409·03 (urban). The Rangoon Society for the Promotion of Infant Welfare employs 8 midwives and 1 medically qualified lady visitor. The number of confinements attended was 1,349, of which 997 were among Burmese women.

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Similar societies at Mandalay, Moulmein and Thatôn are doing useful work and new societies have been started at Toungoo and Taungdwingyi. The Committee of the Sagaing Maternity Ward report 80 admissions to the ward in 1918, which is somewhat less than in the two preceding years.

Causes of death.

166. The registered mortality for different causes in 1918 is compared below with the figures for 1917 :—

Causes.		1918.	1917.
Cholera	...	4,269	1,914
Small-pox	...	750	559
Plague	...	8,840	6,524
Fevers	...	189,512	81,300
Dysentery and Diarrhœa	...	11,216	8,485
Respiratory Diseases	...	13,870	9,233
Suicide	...	214	200
Wounding or accident	...	1,894	1,893
Snake bite or attack by wild beasts		1,747	1,860
Rabies	...	98	61
All other causes	...	156,496	136,566
Total	...	388,906	248,601

The increase of 140,305 deaths over the total of 1917 is distributed amongst almost all the main heads of registration. Of the total number of deaths from cholera, 3,713 were returned by Lower Burma and 556 by Upper Burma. Rural areas returned 3,233 and urban areas 1,036 deaths. The mortality from small-pox was fairly evenly divided among the three divisions of Pegu, Irrawaddy and Tenasserim in Lower Burma, while the whole of Upper Burma returned only 42 deaths. Plague accounted for 5,185 deaths in Lower Burma, and 3,655 deaths in Upper Burma. As in former years mortality occurred mainly in towns, which returned 7,020 deaths against 1,820 in rural areas. During the year, 97,842 doses of plague prophylactic were distributed to Civil Surgeons, Health Officers and Jail Superintendents and 85,239 inoculations were performed. The fever death-rate for the Province was enhanced by influenza deaths to 19·29 against 8·17, the previous five years' mean, and 8·28 for 1917. The rural rate was 20·01 against 8·86 in 1917 and the urban rate 13·72 against 3·69.

Influenza was recognised in Rangoon late in June or early in July, and was definitely traced, in many instances, to travellers who came to Rangoon from India at that time. The general mortality, which was little above the mean in June, commenced to rise steadily in the week ending July 20th. From that time onward influenza was recorded as a cause of mortality, and deaths continued to be ascribed to this disease in increasing numbers. The first wave of increased mortality culminated about August 10th, but there was only a slight remission, and the same level was regained by September 21st. The crest of the second wave at 148 per mille of population per annum was reached on November 2nd, a fairly flat level being maintained between October 12th and that date. Thereafter there was a rapid fall, and an even weekly rate of between 50 and 60 deaths per mille per annum was maintained to the end of the year. Movements of travellers by rail and river-boats rapidly spread the infection far and wide throughout the Province. Pilgrims and visitors returning from religious festivals and fairs, were in many instances responsible for the rapid dissemination of the infection over wide areas, and in towns and villages house to house visits and the congregation of persons at places of business were the principal means by which infection spread. Attendants on patients contracted the infection in the majority of cases. No instances are cited of the carriage of infection by clothing or other effects, or of its transmission by the air or dust of rooms recently occupied by influenza patients. It was generally noticed that malarious districts suffered more heavily than those in which the mean fever death-rate is low. The infection spread to every part of the Province, and the unregistered areas of Upper Burma and the Shan States and Chin Hills suffered as severely as other parts of Burma. The disease was prevalent in Myitkyina town and district from August till October, whence it spread to the Kachin Hills and was carried to Putao by October. Loimwe and Kēngtūng were infected towards the end of the year.

In all these areas mortality was heavy, the majority of the inhabitants contracted the disease, and it is doubtful if a single village entirely escaped infection. The mean annual mortality in Burma returned as due to non-epidemic diseases including fevers, for the five years 1913-17 was 232,600. In 1918 it was 371,094, or an increase of 138,494, which gives a ratio per mille of 14·10, and this may be accepted as approximately the influenza death-rate in registered areas in Burma. Allowing for a certain number of unregistered deaths in these areas, and for the heavy mortality in unregistered areas, it is probable that the excess mortality from influenza and its complications did not total less than 200,000 up to 31st December 1918. The female death-rate relatively to the male death-rate showed a less proportional increase on the mean at ages five to ten years, but a materially greater proportional increase at ages ten to fifteen, fifteen to twenty and twenty to forty. The relatively great increase in female mortality at ages fifteen to forty years appears to be closely associated with the effects produced by influenza upon women during pregnancy and child-birth.

The rapidly increasing mortality in Rangoon attracted the attention of the higher authorities. The Contagious Diseases Hospital was thrown open for the admission of influenza cases, 140 beds being made available for their accommodation. But this measure met only a part of the demand and the Municipal Committee of Rangoon, impressed by the urgency of the situation, organized two emergency hospitals, eventually providing 80 beds. These were available for use by the second week in October and were constantly filled. Motor transport was provided for the sick, and ten dispensaries were equipped in various parts of the town to supply advice and medicine to the less serious cases. The number of in-door patients treated at the Municipal hospitals between 13th October and 30th November was 564, and the number of out-door patients that obtained relief 3,949. The situation was complicated by the constant arrival of large numbers of passengers by sea from India, scores of whom were found to be suffering from the disease on arrival, while many more had already been infected on the voyage. When the magnitude and severity of the epidemic was recognized, the Local Government prepared and distributed warning and advisory pamphlets in several vernaculars to all classes of the population. Steps were also taken to close places of entertainment where large crowds assemble, and to postpone celebrations at pagoda festivals, fairs and similar gatherings, by which the infection of influenza was frequently spread far and wide. A certain measure of segregation was found practicable in military cantonments, especially among British troops. At Maymyo this measure was successful in protecting the rank and file to a very considerable extent from contracting the infection. The jails at Meiktila, Mogôk and Bhamo escaped entirely. This they probably owe to their isolation, and to precautionary and disciplinary measures adopted.

167. No considerable issue of quinine sulphate was made during the year, its place being taken by substitutes, *viz.* residual alkaloid and cinchona febrifuge. These were obtained from the Bengal and Madras Government factories. Of the former drug 32,729 packets and of the latter 3,479 packets, or a total of 36,208 packets in all, were manufactured at the Rangoon Central Jail (each packet is estimated to contain the therapeutical equivalent of 400 grains of quinine sulphate in the form of tablets of five grains or one grain each). The issue to Treasury Officers and others amounted to 35,159 packets, of which 84 contained quinine sulphate, 2,349 cinchona febrifuge and 32,726 residual alkaloid. The issue in 1917 was 32,283 packets of all drugs. Sales by Treasury Officers amounted to 36,490 packets against 45,305 in 1917. A free distribution of 302,600 grains, equivalent to 756½ packets, was also made. **Quinine.**

Emigration and Immigration.

168. The total number of immigrants returned at five ports of Burma, *viz.* Akyab, Rangoon, Moulmein, Tavoy and Mergui, was 259,922, and of emigrants 234,237. The returns for the ports of Bassein and Kyaukpyu are blank There were 36,789 more immigrants, and 2,947 fewer emigrants in 1918 than in the previous year. At Akyab and Mergui both immigrants and emigrants showed a

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numerical increase on the 1917 figures, while at Rangoon and Moulmein emigrants decreased in number.

Medical Relief.

Hospitals and dispensaries.

169. Six new institutions were opened and eighteen institutions were closed during the year: thus at the end of the year, there were 262 hospitals and dispensaries as against 274 in 1917.

Attendance and treatment.

170. The number of patients treated at various institutions totalled 1,851,903 as against 1,867,529 in 1917. Of the aggregate number treated during the year, 75,793 were in-patients and 1,776,110 out-patients as compared with 69,403 and 1,798,126, respectively, in the preceding year.

The chief diseases treated in order of prevalence were:—

All diseases of the digestive system other than Dyspepsia, Diarrhœa, Hepatic diseases and Appendicitis.
Malaria.
All diseases of the respiratory system, except Pneumonia and Tubercle of the lungs.
Ulcers.
Diseases of the skin.
Injuries—general and local.
Diseases of the eye.
Dyspepsia.
Diseases of the ear.
All infective diseases other than those specified under separate headings.
Diseases of the connective tissue.
Rheumatic Fever and Rheumatism.
Pyrexia of uncertain origin.
Diarrhœa.
Diseases of the Nervous System.

There were 752 cases of Cholera, 1,461 cases of Plague and 369 cases of Small-pox against 347, 1,013 and 435 cases, respectively, in the year previous. There were 5,779 deaths among in-door patients treated during the year, the death rate being 7·62 per cent. against 5·77 per cent. in 1917.

The attendance of Burmese and other indigenous races shows a steady increase from year to year. According to sexes the attendance of females of all Asiatic races was poor, though it is somewhat encouraging in the case of Burmese women. Three hundred and seventy-nine persons underwent a full course of anti-rabic treatment at the Burma Pasteur Institute, Rangoon.

General.

171. Expenditure for medical relief amounted to Rs. 20,18,227 as against Rs. 20,09,847 in 1917. The number of sanctioned appointments tenable by Officers of the Indian Medical Service in Burma was 35. To fill up vacancies created by the surrender to the Military Department of most of these officers, makeshift arrangements had to be resorted to, such as combining the duties of two or more appointments and employing Private Practitioners, retired Officers of the Indian Medical Service and Civil Assistant Surgeons. The sanctioned number of Civil Sub-Assistant Surgeons was 381 and the number actually on the rolls on the last day of the year was 396. Twenty one of these, however, volunteered during the year for general Military Service, while eight others were deputed for military duty in India. Eight midwife pupils successfully underwent training in midwifery at the Dufferin Hospital, Rangoon. Special instruction in the prophylactic and curative treatment of simple cases of Ophthalmia in the new-born has been added as one of the subjects of the course of training given to Results-System Midwives, and Midwives already in service in the Mofussil have been similarly specially instructed in this important subject by Civil Surgeons and their Assistants. Fifteen Burmese and Karen nurses qualified after being fully trained in sicknursing from the Rangoon General Hospital in 1918.

Medical School.—The number of students on the rolls at the Burma Government Medical School, Rangoon, was 107, excluding 40 new admissions. Of these, 16 (including six who volunteered for Military Service) passed out

duly qualified, five discontinued their studies and one died, leaving 125 students on the rolls on the 31st March 1919. It is gratifying to note that, with one exception, all the new admissions possess the requisite educational qualifications. The total amount expended for the upkeep of the Burma Government Medical School was Rs. 75,489 as against Rs. 61,288 in the previous year.

Lunatic Asylums.

172. The number of inmates of the Rangoon and Minbu Lunatic Asylums at the end of the year showed an increase from 933 in 1917 to 1,032. The daily average strength was 816·28 against 752·37 in 1917. In the Rangoon Lunatic Asylum overcrowding continued, and want of space added to want of buildings have rendered satisfactory arrangements difficult. The percentage of mortality to daily average strength showed a slight increase of 1·06 over the corresponding figure of the year previous. It was nevertheless much below the death-rates returned for asylums in India. The total amount expended for the up-keep of both the asylums amounted to Rs. 1,89,769 as against Rs. 1,99,739 in 1917. In Rangoon the total average cost per head was Rs. 164 against Rs. 171 in 1917. In Minbu the average cost per head of the population similarly fell from Rs. 118 in 1917 to Rs. 115 in the year of report. The Manufacturing Department continued to work at a profit of Rs. 23,284 as against Rs. 24,207 in 1917.

Sanitation.

Principal works and expenditure.

173. A meeting of the Divisional Sanitary Board was held in December at Mawlaik at which the progress report submitted by the Assistant Engineer on Mawlaik buildings and works, sanctioned and funded, was considered. Though work was somewhat impeded by lack of transport and labour and by the death of a contractor, still considerable progress was made in the clearing of the Civil Station and the erection of the Court-house. The Board made several recommendations as regards details of works not yet carried out.

Ma-ubin, which formerly obtained its domestic water-supply from the Irrawaddy River, was, with effect from the 1st April 1918, provided with a supply from two 6-inch tube-wells recently completed to a depth of 200 feet. Water of good quality is obtained and the average consumption is 52,000 gallons a day. At Henzada two tube-wells were sunk during the year, but both attempts failed to find potable water. At Zigôn a tube-well was sunk to a depth of 1,200 feet with a similar result, and had to be abandoned. At Yenangyaung three tube-wells were put down with successful results. At Pyawbwe the experimental tube-well between 600 and 700 feet deep proved a failure. An experimental infiltration well at Kyauksè also did not prove successful.

Proposals for the lay-out of Yonthalin, Aingthabyu (Lemyethna) and Kyangin in the Henzada District, Pyuntaza in the Pegu District, and Mawlamyainggyun Einmè and Wakèma in the Myaungmya District, received criticism. In Rangoon 20·75 acres of land were reclaimed, 29·11 acres were laid out with roads, and 6·46 acres equipped with a sewerage system.

The total amount spent on sanitary works was Rs. 49,34,364, of which Rs. 43,48,103 were spent in towns and Rs. 5,86,261 in districts. Municipal Committees spent 10·16 per cent. of their income on water-supply, 6·65 per cent. on drainage, 14·16 per cent. on conservancy, and 9·27 per cent. on other sanitary works; while District Cess and District Funds spent only 7·12 per cent. of their income on such works.

Vaccination.

Establishment.

174. The vaccination establishment employed during the year of report, under 42 District Superintendents of Vaccination (Civil Surgeons), and 28 Sub-Assistant Surgeons, comprised 39 Supervisors of Vaccination, 3 Head Vaccinators and 321 Vaccinators. The staff was increased by the addition of 1 Assistant Surgeon and 1 Sub-Assistant Surgeon in Yenangyaung and Mawlamyainggyun towns, respectively. One additional Supervisor and 6 additional Vaccinators were

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appointed in the Myaungmya District. One permanent Vaccinator each was appointed for Mawlamyainggyun and Pyu towns, 2 for Bassein Municipality, and 3 for the Northern Shan States at the cost of State funds. Two female Registrar-Vaccinators in Rangoon Municipality were for the first time included in the staff of Vaccinators. There was a decrease of 7 temporary Vaccinators in Mergui Municipality and District following the cessation of the small-pox epidemic in that district. Fifteen permanent and temporary Vaccinators were either removed or dismissed from the service. Two Supervisors of Vaccination died and 2 resigned.

Number of operations.

175. Out of 561,639 persons vaccinated by the special staff, 303,055 were males and 258,584 females. In addition to these numbers, 3,704 persons were vaccinated at hospitals and dispensaries, 25,257 in jails and 1,032 by private agency, making a total number of 591,632 persons as compared with 519,553 in 1917-18.

The total number of operations performed by the special staff, including those done by "Other Agencies," was 563,020 against 492,008 in 1917-18. In primary vaccinations (423,552) there was a decrease on the previous year's total of 5,865, while re-vaccinations (139,468) showed an increase of 76,877. A substantial increase in primary operations exceeding 1,000 cases was recorded in Rangoon Town (1,571) and in the Toungoo (1,811), Thatôn (1,528), Mandalay 1,135) and Pakôkku (1,523) Districts. A large decrease was observed in the return of primary operations for the Northern Shan States (5,293), Southern Shan States (3,569), Chin Hills (1,165), Thayetmyo (1,199), Shwebo (1,158), Upper Chindwin (1,085), Mergui (1,792), Akyab (1,492) and Sandoway (1,059). Thirty districts showed an increase in re-vaccination, conspicuous among which are the Rangoon Town District (27,777), Mandalay (16,601), Yamèthin (23,868), Sagaing (3,214), Magwe (2,606), Myingyan (1,996), Ma-ubin (1,583), Myitkyina (1,269) and Upper Chindwin (1,014).

The falling-off in primary vaccinations is largely to be explained by the prevalence of influenza during several months of 1918, and the dislocation of routine district work which it involved. The increased activity shown in many districts in performing both primary and re-vaccinations is attributable to the presence or threat of small-pox, particularly in the early months of 1919.

Successful primary operations amounted to 397,720, or an increase of 3,612 on 1917-18 and 7,103 on 1916-17. Successful re-vaccinations totalled 76,588 and exceeded those of 1917-18 by 50,902 and of 1916-17 by 26,517. The percentages of recorded primary operations and re-vaccinations returned as successful were, respectively, 97·83 and 65·27 as compared with 95·88 and 49·74 in 1917-18. In view of the far-reaching effects of the influenza epidemic, it may be said that, on the whole, a decided increase in activity and improvement in inspection of operations has been shown in many districts. Military operations in the Upper Chindwin District and Chin Hills were important factors in reducing the vaccination output in those areas.

The number of primary operations performed in Municipalities and notified areas amounted to 37,594 and of re-vaccinations to 74,078 as compared with 34,330 and 23,836, respectively, in 1917-18. Of the primary cases 35,687 were returned as successful, giving a percentage of 98·40. Of the re-vaccinations 39,991, or 67·31 per cent., were returned as successful. Against an estimated population of 20,177 infants, who survived the first year of life, 22,128 successful primary operations at under one year of age were performed. The excess over estimated births was due to causes explained in previous reports—among which immigration and defective registration of births predominate.

During the year 3,707 operations were performed in dispensaries against 2,787 in 1917-18; of these 2,066 were primary operations with a percentage success of 98·49, and 1,641 re-vaccinations with a success ratio of 67·42. The largest number of vaccinations was performed in the Mandalay Division and in the Myitkyina District, closely approached by the Irrawaddy Division and the Myaungmya District.

Out of an average jail population of 13,521, the number vaccinated during the year was 25,257, of which 22,659 were re-vaccinations.

Amongst the arrivals at the Port of Rangoon 6,055 persons were primarily vaccinated as against 11,330 in the previous year.

Out of 425,266 persons primarily vaccinated, Civil Surgeons and Health Officers verified 58,170, or 13·68 per cent., against 12·60 per cent. in 1917-18; and Supervisors of Vaccination verified 203,960, or 47·96 per cent., against 53·55 per cent. in the previous year. The proportion verified out of 141,109 re-vaccinations by Civil Surgeons and Health Officers was 8·24 and by Supervisors of Vaccination 46·47—the corresponding ratios in 1917-18 were 7·42 and 46·52. The amount of verification work performed by both classes of officers was, on the whole, satisfactory, though there was a decrease in the volume of work performed by Supervisors of Vaccination.

Expenditure.

176. The total expenditure in 1918-19 was Rs. 2,27,709-4-11, which shows an increase on that for 1917-18 of Rs. 6,494-13-11: Rs. 1,43,748-0-1 were spent on pay of the establishment, Rs. 63,034-13-6 on travelling allowance and Rs. 20,926-7-4 on contingencies. The average cost for each successful operation was Re. 0-7-8 against Re. 0-8-5 in the previous year.

Vaccine Depôt, Meiktila.

177. The year of report has been one of unexampled activity and productiveness at the Depôt. Comparing the outturn and issue of lymph of the year of report with that of 1916-17, the next highest year in order of productivity, the number of calves inoculated in 1918-19 was 523, an increase of 165 on the earlier year; the average yield per calf was 423·5 grains against 365·5 grains; and the issue of 755,923 doses against 726,424. The increased yield of lymph was due to a better class of calf secured under a new system of supply.

The nett expenditure of the Depôt was Rs. 18,621-5-11, or an increase of Rs. 143-1-0 on that of 1917-18. The larger output of lymph in the year of report, amounting to an increase of 89,130 doses, reduced the cost per dose to 4·73 pies as against 5·32 pies in 1917-18.

CHAPTER VII.

INSTRUCTION.

REFERENCES—

Report on Public Instruction in Burma for the year 1918-19.
Statistical Abstract for British India, Volumes IV and V.

General System of Public Instruction.

For information on this subject reference should be made to paragraphs 178 to 205 of the *Report on the Administration of Burma* for the year 1917-18.

Education.

General progress and educational measures.

178. If educational progress be judged merely by statistics very little advance can be claimed for the year of report. But, while there is little educational expansion to report, the year has been in several ways a year of active preparation making for better educational organization. The labours of the University Committee have brought the idea of a University of Rangoon so near realization that little more than the sanction of the Government of India and the Secretary of State is wanted to convert the idea into a fact. Independently of the University Committee preparations for increased efficiency in Secondary Education have been pushed forward and measures towards that end have been sanctioned, or provisionally approved, or are under consideration by Government. Improvements have been made in curricula. A course in Science has been sanctioned for Anglo-Vernacular High Schools and the whole curriculum for schools for Europeans has undergone revision on lines approved by a Conference of Managers and Heads of the schools affected. By the constitution of Advisory Boards to discuss and make recommendations relating to courses in, and public examination of, secondary schools, a step has been taken towards the co-ordination of Secondary and Higher education, and the department has been strengthened by a closer association with it of non-official skill and experience. New principles and procedure were adopted in the recognition of Anglo-Vernacular and European Schools. Schools are no longer brought on to the register standard by standard, but are recognized once for all as Primary, Middle or High Schools.

The system of educational finance, as it affects Aided and Anglo-Vernacular and European Schools, has been thoroughly overhauled, and a completely revised grants-in-aid Code, after having been placed before and discussed by a Conference of Managers of aided schools, was submitted to Government during the year and has since been sanctioned.

Number of schools and scholars and expenditure.

179. The number of all institutions, public and private, fell from 27,532 to 27,100. Public institutions decreased in number from 9,501 to 9,238. Private institutions decreased from 18,031 to 17,862. Pupils attending the former fell from 383,312 to 377,191, rather more than one and a half per cent. The whole loss occurred in Vernacular Primary Schools. Pupils attending private schools fell from 200,986 to 195,717, more than two and a half per cent. While Vernacular upper primary schools decreased by 405 and pupils by 8,652, lower primary vernacular schools increased by 108 and pupils by 555. Nevertheless, it was in the lower primary standards that the decline in numbers chiefly occurred.

The total expenditure on education during the year was Rs. 77,10,548, or Rs. 39,396 less than in 1917-18. If the seven lakhs odd spent in 1917-18 on the University site be left out of account, the total expenditure of the year from public funds amounted to Rs. 46,12,193 and exceeded expenditure from the same source during the previous year by Rs. 4,07,038. Expenditure from Provincial funds was Rs. 32,08,216, or (not reckoning expenditure on the University

site) Rs. 31,287 less than in 1917-18. Expenditure from local funds was Rs, 10,48,467, or Rs. 3,48,132 in excess of that of the previous year. Expenditure from Municipal funds was Rs. 3,55,510, or Rs. 90,193 more than in 1917-18.

The portion of the total expenditure met from tuition fees was Rs. 23,56,267, or Rs. 2,33,704 above the previous year's figure. Expenditure met from "Other sources," that is to say, endowments, subscriptions and contributions, amounted to Rs. 7,42,088, or Rs. 40,284 more than was met from the same sources in 1917-18. Thus a little more than 30 per cent. of the cost of public education was met from tuition fees, a little less than 10 per cent. from private sources and close on 60 per cent. from public revenues.

The 'direct' expenditure on colleges and schools amounted to Rs. 52,33,912, or Rs. 3,73,810 above the previous year's expenditure. If the cost of the University site is omitted, there was an increase in indirect expenditure under buildings of Rs. 55,836 and in total indirect expenditure of Rs. 3,07,216.

The average expenditure on education per head of population in 1918-19 was As. 10-2, of which As. 6-1 was from public funds. The figures for 1917-18 were As. 10-3 and As. 6-6. The average cost of educating each pupil rose from Rs. 12·6 to Rs. 13·8. There was an increase in every stage and kind of education, except higher education, where the average cost fell from Rs. 359·1 to Rs. 295·4, and lower primary schools, where the average cost was Rs. 2·5 as against Rs. 2·7. The average cost rose in secondary schools from Rs. 25·5 to Rs. 27·7; in upper primary schools from Rs. 5·0 to Rs. 5·6; in training schools from Rs. 316·8 to Rs. 320·5; and in special schools from Rs. 14·7 to Rs. 16.

180. There were one European primary and 16 Anglo-Vernacular schools for boys and 5 Anglo-Vernacular and 3 European primary schools for girls. The total number of Vernacular primary schools for boys fell from 6,662 to 6,336. Vernacular primary schools for girls rose from 926 to 955. The total number of recognized schools of all classes in which primary education is given fell from 9,006 to 8,720 and the number of pupils in primary standards of all schools fell from 348,562 to 341,219, a loss of 6,733 boys and 610 girls. European schools and girls' schools are treated separately below. **Primary education.**

Monastic schools, both secondary and primary, have declined from 3,397 to 3,228. The withdrawal of recognition from the 'B' schools, (*i.e.* schools which receive certain grants-in-aid, but do not follow the departmental curriculum), which seems inevitable in the interests of sound policy and sound finance, will cause a further decline of more than a thousand schools. Pupils attending these monastic schools numbered 91,361 boys and 11,854 girls as compared with 95,127 boys and 8,724 girls in the previous year.

The reports of Inspectors on the working of the special practical curriculum for Primary Schools, introduced as an experimental measure on the initiative of Father Perroy of Thônzè, show that the experiment has failed; but it also seems clear that it never had a chance of success, as the conditions of success were rarely present. The experiment was instituted before the control of Vernacular education was transferred to Divisional Boards, and the Boards never seem to have had the scheme under consideration. It should be tried again under reasonable conditions. If the Boards adopt the newly proposed system of control and financing, this should be quite possible.

Towards the close of 1918 Government communicated to all Commissioners of divisions and to the President of the Rangoon School Board for opinion, a scheme drawn up by the Director of Public Instruction for a new system of finance and control of Vernacular Schools. The proposal was to abolish the existing system of grants-in-aid, results, maintenance and half-salary grants, and to make the Divisional School Boards practically responsible for the maintenance of the schools recognized under their authority. Under this scheme the restrictions of the existing grant rules will be removed, regular payment of salaries of teachers in recognized schools will be rendered possible, and the stability of the schools will be assured; while the Boards will have adequate control over the funds at their disposal and will be able to regulate expenditure strictly in accordance with their financial resources.

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For reasons very similar to those which led to the institution of "B" schools, an examination in elementary arithmetic, called the *Mulagananthincha* examination, has been held every year since 1913. The candidates are *pôngyis* and *upazins*, and a reward is given to every one who passes, the object being to encourage teaching according to modern principles in monastic schools. The number of candidates presenting themselves for the examination has steadily increased, the number for 1918-19 being 604, of whom 167 passed. As, however, there was reason to believe that, of the *pôngyis* and *upazins* who passed, some would have learnt arithmetic in any case, and very many had no intention of becoming teachers, but appeared merely for the sake of the reward, the opinion of Inspectors was invited on the subject. The Inspectors were practically unanimous in declaring that the *Mulagananthincha* examination served no useful purpose and had better be abolished. There was no evidence to show that it was appreciated by the Buddhist priesthood, but some evidence that the priests regarded it with suspicion. The discontinuance of the examination has accordingly been recommended to Government.

Secondary education.

181. The number of Anglo-Vernacular Secondary schools rose from 135 to 141; of Anglo-Vernacular Secondary schools for girls from 15 to 17; of European Secondary schools for boys from 10 to 11; European Secondary schools for girls numbered 17 as in the previous year. Vernacular Secondary schools for boys rose from 1,112 to 1,120; those for girls fell from 103 to 98. The statistics for European schools and girls' schools are also dealt with separately.

Government managed one European and 37 Anglo-Vernacular schools for boys, but none for girls; 27 Vernacular schools for boys and 7 for girls. The Vernacular schools are being transferred to local control.

The total number of pupils receiving instruction in recognized secondary schools during the year of report was 127,254, or 1,269 above the number for 1917-18. The very great majority of the 127,254 were pupils in the primary stage, the actual number of secondary pupils being 22,212 boys and 3,590 girls. Of these, 1,046 boys and 863 girls were in European schools, 11,566 boys and 1,268 girls in Anglo-Vernacular schools, and 9,600 boys and 1,459 girls in Vernacular schools. The total for 1917-18 was 21,941 boys and 3,351 girls.

The only change of importance in the curriculum for Anglo-Vernacular schools is the adoption of an optional High school course in science. The course was drafted by the committee appointed for the purpose and has been approved by Government.

An Advisory Board for the conduct of the Anglo-Vernacular High School Final Examination was constituted during the year. The members of the Board were appointed by the Director, and represent the Department, Colleges affiliated to the Calcutta University, and the managing and teaching agencies of recognized schools. The Board not only recommends arrangements for the conduct of the examination, but advises the Director in all matters relating to studies in Anglo-Vernacular Schools.

The results of the examinations were as follows —

Examinations.	1917-18.		1918-19.		Percentage 1917-18.	Percentage 1918-19.
	Number presented.	Number passed.	Number presented.	Number passed.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Matriculation Examination ...	448	266	...	...	...	...
Anglo-Vernacular High School Final	531	311	592	304	59	51
High School Examination for Europeans	157	77	164	82	49	50
Vernacular High School Examination (Standard IX) ...	190	124	199	137	65	69
European Standard VII ...	297	219	303	209	74	69
Anglo-Vernacular Standard VII	2,690	1,284	2,739	1,318	48	48
Vernacular Standard VII ...	2,481	1,150	2,718	1,046	46	38

The improved scale of pay of teachers in Government Anglo-Vernacular schools, referred to in last year's Report as having been approved by Government, but still awaiting formal sanction, was sanctioned with effect from the 19th April 1918.

Two important conferences were held in December 1918; one to consider a revision of the European school curriculum, the other to consider a revision prepared by the Director of the grants-in-aid rules for European and Anglo-Vernacular schools. The revised rules have since received the sanction of Government.

Collegiate education.

182. The number of students on the rolls of the two Colleges in Rangoon was at the end of the year of report 800 (Government College 687 and Judson College 113). The total number at the end of 1917-18 was 725 (Government College 615 and Judson College 110). Taking the average number on the rolls, the total figures are 827 and 711, respectively. In Judson College, only Arts courses are provided. Government College provides courses in Science and Law also. In the latter College, there was an appreciable increase in the Department of Law (40 to 53, including 18 candidates for the second grade Pleadership examination), the Law classes being larger than in any year since their institution; a slight rise in the Department of Arts (381 to 393), and a very marked increase in Science (194 to 241).

The Principal of the Government College once more complains that Logic is an unsuitable intermediate subject, but he notes with satisfaction that students are realizing the fact.

The postponement of the intermediate examination from the 17th March to the 22nd April, the prolongation of the examination well into May, and the consequent late announcement of results were very unfortunate, as it was not possible to open the Junior B.A. and B.Sc. Classes, which usually open in June, until the beginning of August. The following is a comparative statement of University examination results in 1917-18 and 1918-19:—

Intermediate	Arts	1918	119 passes out of 198 presented, 60 per cent.
		1919	139 passes out of 203 presented, 68 per cent.
	Science	1918	41 passes out of 68 presented, 60 per cent.
		1919	59 passes out of 80 presented, 74 per cent.
Bachelor degree.	Arts	1918	38 passes out of 76 presented, 50 per cent.
		1919	54 passes out of 79 presented, 68 per cent.
	Science	1918	8 passes out of 16 presented, 50 per cent.
		1919	21 passes out of 29 presented, 72 per cent.
Master of Arts degree		1918	2 passes out of 5 presented, 40 per cent.
		1919	... passes out of 1 presented, ... per cent.
Bachelor of Law degree		1918	4 passes out of 5 presented, 80 per cent.
		1919	14 passes out of 17 presented, 82 per cent.

Private candidates included, there was an increase (except in the M.A.) in the number of candidates presented and in the percentage of passes. The individual colleges show, under most examination heads, an increase in the number of candidates presented and under all heads a higher percentage of passes than in the previous year. Judson College obtained 100 per cent. passes in the B.A. degree examination.

There were numerous changes in the Government College staff, largely owing to the departure and return of Professors on and from military service. One vacancy was for a time filled by a lady, Miss M. Kingsley, M.A. The Principal pronounces the experiment a distinct success. The death, from pneumonia, of Mr. B. B. Banerji, Lecturer in Mathematics, was a great loss to this college. Mr. A. D. Keith, who had been acting for over two years as Lecturer in English, resigned his appointment during the year. The post of additional Professor of Chemistry, sanctioned in 1917-18, was filled in the year of report by the appointment of Mr. R. Venkateswaran, a graduate of the Madras University, with high Honours in Chemistry.

All the European and Anglo-Indian students are members of the 18th (Rangoon) Battalion, or the 3rd Rangoon Group Garrison Artillery in the Indian Defence Force. Five students were appointed to the Indian Army Reserve of Officers during the year. Maung Ba Hpu, B.A., Assistant Demonstrator in Chemistry, and Maung Kin Maung of the senior I.Sc. class, were selected for

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training for a King's Commission at the Training school for Indian Cadets at Indore. Seventy-eight students served with the Indian Defence Force (Non-European Branch) from the 22nd April to the 21st July 1918 at Maymyo and Mandalay. The Government of India have sanctioned the formation of a half company of University volunteers under the Indian Defence Act and it is hoped that this will come into being in the current year. Over 150 students have registered their names for it and Mr. Campbell has undertaken command of the half company.

There were during the year 12 students who held Burma scholarships attending the Medical College at Calcutta, and five students, two men and three women, sat for the Final M.B. Examination. The ladies all passed, the men failed. Three students, including one lady, sat for the First M.B. Examination. All passed. In the Burma Medical School at the close of the year there were 125 students on the rolls. The number of students taught during the year was 147. Of these 80 were Burmans, 56 Indians, 7 Anglo-Indians and 4 Chinese. Twenty students, who passed the third year examination, left for Madras in April 1919 to undergo three months' practical midwifery training at the Government Maternity Hospital. In the Veterinary School at Insein there were 37 pupils at the beginning and 42 at the close of the year.

The total number of candidates for the *Patamabyan* examination rose from 1,329 to 1,426, but the number of successful candidates dropped from 573 to 504. Seventeen nuns sat for the examination as against four last year, and of these, 8 out of 9 passed the *Patama Ngè*, 3 out of 4 the *Patama Lat*, and 2 out of 4 the *Patama Gyi* stage. Thirteen laymen appeared for the *Patamabyan* examination and 3 passed.

There were 39 women students in the two affiliated colleges in 1918-19, as against 27 in the previous year. The success of women candidates in the Intermediate examinations in Arts and Science and in the B.A. degree examination was very gratifying. Of the 17 who sat for these examinations, all but three, who failed in the Intermediate Arts, were successful.

The most important events of the year are those connected with the Rangoon University Scheme. On the 27th March 1919 the Committee appointed to enquire into and report on courses of study and examinations in the proposed University of Rangoon and related matters presented its final report. About the same time the Director of Public Instruction submitted to Government a revised draft bill, first statutes and first regulations of the proposed University, together with financial estimates. The revised drafts were drawn up by Mr. F. Dewsbury, Registrar of the Madras University, in consultation with and under the supervision of the Director, and were based on earlier drafts and on the recommendations of the University Committee. The Committee in itself was a strong one, representative of a number of interests and agencies, academic and unacademic, and it was further strengthened by the co-operation of five experts from India who were invited by Government to assist. The report of the Committee has been published separately.

Technical education.

183. Technical schools are classified as (1) Engineering and Engineering apprentice schools, two schools, both maintained by Government; (2) the Reformatory school maintained by Government; (3) six Technical and Industrial schools; (4) seven Commercial schools; (5) three schools for the Blind; and (6) Survey schools. The Government schools remain as before. A new industrial school has been recognized during the year. One Commerical school was closed and two fresh Commercial schools have been recognized. All these schools, except the Engineering, Reformatory and Survey schools, are under private management. The Reformatory school is dealt with in a later section.

The number of pupils under instruction in the schools enumerated (the Survey schools and schools for the Blind being excluded) rose from 982 to 1,141, but the increase was almost entirely in the Commercial schools, in which the total attendance was 619 as against 467 in 1917-18.

Drawing is still classed as a technical subject. Thirteen European, 113 Anglo-Vernacular and 1,287 Vernacular schools presented candidates for the

Drawing examination as against 28,102 and 1,262 in the previous year. The total number of candidates presented was 74,421 as against 68,029 in 1917-18. The total number of passes was 47,196 as against 41,281. Passes in Drawing for the Teachers' certificate examination fell very heavily, *viz.* from 354 to 160. The number of passes in examinations in other technical subjects was as follows: Vocal Music, 3,622; Cooking, 30; Dress-making, 103; Printing, 11; Book-binding, 13; Carpentry, 208; Weaving, 166; Blacksmith, 2; Tinsmith, 4; Cane-work, 26; Leather work, 9; Lace-making, 326; Slöjd, 2,978; and Needle-work, 8,636.

Two hundred and ninety-seven schools presented candidates for the school garden examination as against 282 in 1917-18. The Agri-Horticultural Society, Rangoon, again held a competition for gardens in schools in the Pegu and Tenasserim Circles and presented prizes to the successful competitors. There were 25 entries. A similar competition was held in Moulmein. Prizes for school gardens were also awarded to schools in the Irrawaddy, Meiktila and Mandalay Circles.

The number of Survey schools under the control of the Commissioner of Settlements and Land Records continued to be 18. Two hundred students from these schools appeared for the examination in Arithmetic and Revenue Law and 218 for the examination in Surveying. The percentage of success was higher than in the previous year in Revenue Law, but lower in Arithmetic and Surveying.

There were 34 pupils in the Moulmein School for the Blind and 25 in the St. Michael's and St. Mary's Schools for the Blind at Kemmendine. The staff at Kemmendine was increased by one lady teacher for the Girls' School. A new building, since completed, was under construction during the year. In both schools instruction is given in manual work as well as in literary subjects.

Training schools.

184. The number of Normal schools remained unchanged, *viz.* 12. There are five Government and three aided Normal schools for masters and four aided Normal schools for mistresses. To these may be added the Kindergarten section attached to St. Michael's School, Maymyo. The Government Schools for masters all admit women students. Three of the Normal schools are Anglo-Vernacular only, four are vernacular only, the rest train students in both divisions. There are in Rangoon one Normal school to which students of either sex are admitted, two Normal schools for men and two for women.

The number of students undergoing training in the several grades in the Anglo-Vernacular and Vernacular Normal schools in 1917-18 and 1918-19, respectively, was as follows:—

Grades.	Anglo-Vernacular.				Vernacular.			
	1917-18.		1918-19.		1917-18.		1918-19.	
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
High School Certificate ...	36	8	17	1	15	1	19	1
Middle School Certificate ...	66	28	73	37	176	42	165	49
Primary School Certificate ...	91	79	57	56	16	64	65	86
Elementary Training Class ...	...	...	...	...	158	73	298	118

In the Anglo-Vernacular division there was a notable fall in the number of both men and women students in the higher and primary grades, while there was some increase in the middle grade. The fall in numbers in the primary grade is not to be regretted. In the Vernacular division there is a higher figure in every compartment of the table except that of middle grade men students. The total number of men students under training fell from 400 to 396, while the number of women rose from 222 to 230. There was thus a small increase in the total number.

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Thirteen elementary training classes attached to Vernacular schools were opened during the year, thus raising the total number from 19 to 32. These classes are specially valuable in providing training for men and women, who have had actual experience in teaching, but have not been trained in any Normal school. It is contemplated that the elementary training classes will soon replace entirely primary grade classes in Vernacular Normal schools.

The following table shows Anglo-Vernacular examination results. The examinations are conducted by the Educational Syndicate :—

Grades.	Anglo-Vernacular.		Vernacular.	
	1917-18.	1918-19.	1917-18.	1918-19.
High School Certificate ..	19	28	28	22
Middle School Certificate ...	81	63	168	76
Primary School Certificate ...	118	114	445	439

A large fall in the number of Middle and Primary grade candidates, who presented themselves for examination, is to be accounted for by the new rule under which no candidate is permitted to sit for a theoretical test before he has passed the required literary test. The inconsiderable decrease in the number of successes and the much higher percentage of success in 1918-19 proves that the rule has disqualified the unfit. While the total number of successful candidates, Anglo-Vernacular and Vernacular, trained and untrained, was less than last year's number by 117, the number of successful candidates who had previously undergone training rose by 67 (from 310 to 377).

In order to encourage graduates to undergo courses of training, the senior and junior university scholarships, which had in various ways failed of their object, have been abolished, and a clause has been added to the Educational Code under which the Director is empowered to award additional stipends to graduate-students under training. Three graduates are at present in receipt of additional stipends.

European schools.

185. The number of schools for Europeans has remained unchanged, namely 32 ; or 17 High, 11 Middle and 4 Primary schools. One European school is a Government school, the rest are aided schools under private management. The total number of European pupils under instruction in all classes and grades of institutions in 1918-19 was 5,575 as against 5,370 in 1917-18. With the exception of 169 pupils in 1917-18 and 175 in 1918-19, who were in Anglo-Vernacular and Vernacular schools, the 5,370 European pupils and students of 1917-18 and the 5,575 European pupils and students of 1918-19 were either in schools for Europeans or in institutions, such as colleges and training schools, which serve the Anglo-Indian Community on the same terms as other communities.

There was a decrease of 13 girls in the high department, of 14 boys in the primary department and of 6 men and 3 women in training schools. Only one European lad was under training. At every other stage there was an increase. The number receiving university training has risen by 50 per cent., from 32 (including 13 women) to 48 (including 21 women). There was a remarkable rise also in the number undergoing training in special schools, chiefly for shorthand and typewriting, from 206 (including 151 women) to 272 (including 202 women).

The total number of pupils in schools for Europeans in 1918-19 was 5,732, of whom 679 or 12 per cent. were non-Europeans. In 1917-18 the figures were 5,605, non-Europeans 703, or 13 per cent. During the year of report the work of inspecting schools for Europeans was assigned to Circle Inspectors. The education of Europeans is mainly carried on in three circles, Rangoon Town, Tenasserim and Mandalay, and is for the most part concentrated in five towns, Rangoon, Moulmein, Toungoo, Mandalay and Maymyo. The number of European pupils in schools for Europeans in the four remaining circles was only 261 out of a total of 5,053.

The inspection reports on schools for Europeans were distinctly favourable. Examination results shewed improvement at every stage, as will be evident from the following table :—

		1917-18.			1918-19.		
		Presented.	Passed.	Per cent.	Presented.	Passed.	Per cent.
University ...	Degree ...	5	2	40	9	5	56
	Intermediate ...	13	11	85	17	12	71
School ...	High ...	157	77	49	164	82	50
	Middle ...	297	219	74	303	209	69

During the war, teachers, pupils and *ex*-pupils of the European schools rendered good service. Over 60 obtained commissions and between 400 and 500 were on active service on various fronts. Of these 31 were killed in action or died in captivity. Not a few were decorated for distinguished gallantry.

Education of Mahomedans and special classes.

186. The total number of Mahomedans in all classes of institutions, public and private, in 1918-19, was 26,890, being a fall of 939 from the number in the previous year. The decrease is accounted for by private schools, public schools showing a slight advance.

In schools for Mahomedans there were 11,169 pupils in 214 recognized schools of which 6 were Anglo-Vernacular schools as against 10,358 pupils in 215 schools in 1917-18. Thus in recognized schools specially maintained for Mahomedans, there has been an appreciable expansion. The number of private Mahomedan schools has remained the same, namely 333, but the number of pupils is said to have fallen by 796. If we class the Mahomedan pupils in recognized institutions according to the grade of institution, the figures for the two years are :—

	(1917-18).	(1918-19).
Collegiate	39	53
Secondary	6,046	6,102
Primary	12,575	12,496
Total ...	18,660	18,651

Mahomedans under instruction in public schools form 5·1 of the total number of pupils in the high stage, 5·3 of the total in the middle stage and 5·3 of the total in high and middle stages taken together.

The number of Mahomedan girls under instruction has fallen in public schools from 4,644 to 4,480 and in private schools from 2,811 to 2,357. In lower primary vernacular public schools the number of girls fell by 564, but there was an increase of nearly 400 in vernacular schools of higher grades and of 6 in Anglo-Vernacular schools.

The increased number of Mahomedan girls on the rolls of schools of the better class and the smaller number on the rolls of inferior schools suggest the inference that conditions obtaining in the latter schools, and not increased disinclination towards education on the part of parents, are responsible for the lower total figures. If the inference were extended to vernacular schools generally it would probably be correct.

In public examinations Mahomedan students have, on the whole, acquitted themselves better in 1918-19 than in the previous year. The comparative figures are—

		(1917-18).	(1918-19).
University ...	Degree ...	3	7
	Intermediate ...	12	11
Schools ...	High ...	20	14
	Middle ...	98	122

The total number of recognized schools for special classes has decreased by 48 and the total number of pupils in these schools by 1,326. Karens show a loss of 47 schools and 1,001 pupils. The total number of recognized special schools in 1917-18 and 1918-19, respectively, was : schools, 1,704 and 1,656 ; pupils, 55,137 and 53,811.

CHAP. VII.—INSTRUCTION.

There were in 1917-18, 39 Anglo-Vernacular Schools for special classes with 6,308 pupils. In 1918-19 the number of schools rose to 40 and the number of pupils to 6,537.

The number of private schools for special classes rose from 1,226 to 1,328 and the number of pupils by 605 (from 16,314 to 16,919).

The total number of pupils belonging to special classes in all kinds of recognized schools fell, according to the statistics, from 73,777 to 72,367. The following classes share in the decline: Karens, Chins, Taungthus, Shans, Palaungs and Danus. The establishment of an Elementary Training Class at Yawnghwe should help the progress of Shan education. Higher figures appear against Talaings, Kachins, Lahus and Lawas, Chinese and Indian races.

The steady increase of Tamil and Telugu schools and pupils in Rangoon is noted by the Inspector of Schools, Rangoon Town Circle. Tamil and Telugu candidates have acquitted themselves very creditably in the public examinations of the year. The Inspector of Schools, Tenasserim Circle, remarks on the good work done by the Tamil school in Moulmein.

Amongst the special classes are included Chinese. There are four recognized Anglo-Chinese schools, all under the management of Christian missionaries. There are no recognized Vernacular Chinese schools; and only 15 unrecognized, with about 1,100 pupils, are recorded. There are known to be many more and the appointment of a Supervisor of Chinese shools will probably induce more of them to seek recognition.

Female education.

187. The number of girls in public institutions fell slightly during the year from 116,613 to 116,514. The chief loss was in Vernacular primary schools, which had over 1,200 fewer girl pupils. At almost every other stage there was an increase. The number of girls in Arts Colleges rose from 27 to 39 and in training schools from 212 to 236. Special schools, chiefly Commercial schools, contained 681 pupils—an increase of 236.

There was a satisfactory increase in the number of European girls attending Colleges and Training schools. The number of girls under instruction in European schools was slightly above the previous year's figure. In Anglo-Vernacular schools the total figures in all grades were higher by 480 than in 1917-18. Girls in Vernacular schools were fewer by 869 than in the previous year, though there were more girls' schools. In private schools 5,273 girls are said to have received instruction as against 5,827 in 1917-18. The number of girls in girls' schools, public and private, rose by 694, that is to say, from 31,999 to 32,693.

Government maintained seven Vernacular Secondary schools, but no European or Anglo-Vernacular schools for girls. Aided European schools for girls numbered 20 as in 1917-18, Anglo-Vernacular 22 (an increase of 3) and Vernacular 1,046 (an increase of 24).

As in the previous year women students were, in proportion to their numbers, more successful in University examinations than men. The same holds good this year of High School examinations.

The following statement gives details of girl candidates for the two years:—

Grades.	1917-18.			1918-19.		
	Presented.	Passed.	Per cent.	Presented.	Passed.	Per cent.
B.A. Degree examination ...	3	2	67	2	2	100
Intermediate Examination in Arts	17	11	65	12	7	58
Intermediate Examination in Science	...	...	...	5	5	100
						71
Anglo-Vernacular High School Final	38	27	71	41	27	66
European High School ...	66	39	59	71	46	65

Reformatory School, Insein.

188. In the Reformatory School, the year opened with 80 boys on the rolls and closed with 87, of whom 51 were Burmans, the remainder being Indians, Chinese and Indo-Burmans. The daily average population was 83 as against 72 in the

previous year. Thirty-one boys were admitted during the year, 19 of whom were Burmans, 10 Indians and 1 Chinese. Twenty boys were released in the course of the year on completing their period of detention, two were discharged for ill-health and two died in the school infirmary. The sanitary condition of the school was satisfactory, and the boys on the whole enjoyed good health, notwithstanding a slight epidemic of influenza, which was indirectly the cause of one of the two deaths recorded. The Superintendent is able to report a marked improvement in discipline and general conduct. Thirty-six punishments were inflicted on 27 boys; in 23 cases the offence was "being found in possession of tobacco." In the previous year punishments were inflicted on 74 occasions, 56 of the punishments being for insubordination, and 48 boys in all were punished. Sums amounting to Rs. 487 were earned in gratuities paid for success in passing examinations in the trades taught in the school. Seven boys were sent out of the school on license as against 4 in the previous year. They are reported to be working satisfactorily. Religious instruction continued to be given by *Sayadaw* U Nyaneinda, who, with the assistance of six other *pôngyis*, examined 44 boys in Scripture, 34 of whom were successful. Sixteen boys were examined in carpentry, 18 in tinsmith work, 16 in shoe-making and 15 in cane-work; all of these passed. In the standard examinations conducted by the Deputy Inspector of Schools, 47 boys secured promotion out of 55 presented. The results of the examinations, both technical and literary, are highly creditable to the teaching staff. Games were played as usual and the annual athletic sports meeting was held in December 1918. The Superintendent is to be congratulated on the efficient conduct of the school during the year.

Literature and the Press.

Publications registered.

189. There was a further decline in the number of publications from 216 to 167, and the decrease which began in 1914, has doubtless been accelerated by the increasing cost of production and the difficulty of obtaining paper. Ninety works were in Burmese, 18 in English or in Burmese and English, 29 in Pāli or in Pāli and Burmese, 13 in Tamil and the remainder in Chin, Karen, Kachin and other languages. There were 74 works on religion, which is a smaller proportion than usual, besides 10 dramas, 13 works on language, 8 works of fiction and 40 miscellaneous works, such as bye-laws of co-operative credit societies, rules of associations and the like.

The great majority of the religious works were Buddhist discourses and moral precepts, commentaries on or editions of the Buddhist Scriptures, and books of prayer. The Tamil publications in this class comprised seven Hindu religious books. Translations of Christian Scriptures, prayers and hymns were also published in Burmese and other Vernaculars of the Province by the American Baptist Mission. One so-called religious work, with a pronounced political bias, was proscribed by the Local Government, as calculated to throw contempt upon Christian ideals and to belittle the cause of the Allies.

The increase of dramatic works from 4 to 10 was accompanied by a change in the type of play, and some of the new plays were based, not on the usual classical and historical themes, but on the adventures of ordinary human beings, though the marvellous element is occasionally introduced. The type of novel published showed no improvement and was characterised by a complete absence of any originality in plot or construction. The almost invariable theme is the love affairs and intrigues of a young man or school boy moulded, as far as circumstances permit, on the model of Don Juan.

The works on language comprise a new Burmese-English Dictionary, a Pāli Grammar and other miscellaneous educational works. The five historical works include a Burmese translation of a History of Arabia, an account in Burmese of the United States, a Pāli-Burmese History of the Zatngaya Pagoda, the legend of Mandalay Hill, and a short History of China, the last two both in Burmese. Only two legal works were published, namely a Burmese translation of the Indian Penal Code and a Digest of Civil Rulings in Burma.

CHAP. VII.—INSTRUCTION. Presses, newspapers and periodicals.

190. Excluding the three Government Presses at Rangoon and Maymyo, the number of presses in the Province increased by one from 154 to 155. Fourteen presses were closed and fifteen new ones were opened during the year. The number of presses in Mandalay increased by two, and in the Hanthawaddy and Prome Districts by one each, while the Akyab, Pyapôn and Kyauksè Districts each showed a decrease of one. Elsewhere there was no change in the net number of presses working at the end of the year. Of the total of 155 presses, 67 were situated in Rangoon and 30 in Mandalay.

Owing to an increase in Rangoon from 40 to 43, the number of newspapers published rose from 50 to 53. Of those published elsewhere, four were published in Mandalay, three in Bassein, two in Akyab and one in Moulmein. Of the eleven daily newspapers, three were published in English, four in Burmese, two in English and Burmese, one in Chinese and one in Tamil. Of the newspapers not published daily, seventeen were in English, seven in Burmese, six in English and Burmese, seven in Karen, two in Kachin, and one each in Urdu, Chinese and Gujarati.

The number of periodical publications, other than newspapers and Government publications, decreased from 30 to 28, of which twenty-one were published in Rangoon, five in Mandalay and two in Toungoo. Eleven were written in English, eleven in Burmese, two in English and Burmese, three in Karen and one in Tamil, the figures being much the same as in the previous year.

Literary Societies.

See paragraph 294 of the ***Report on the Administration of Burma*** for the year 1911-12.

Rangoon Societies.

191. There were ten societies, the same number as in the previous year They were the Literary Society, the Rangoon Teachers' Association, the Bernard Free Library, the Agri-Horticultural Society, the Bar Library Association, the Rangoon Pleaders' Association, the Buddhist Propaganda Society, the Young Men's Buddhist Association, the Burma Moslem Society and the Burma Research Society. Members of the Literary Society increased from 160 to 170 and subscriptions received from Rs. 7,295 to Rs. 8,097. Additions to the library numbered 427, but difficulty was experienced in getting out shipments of books.

Lectures on technical subjects and on the war were delivered in the hall of the Rangoon Teachers' Association, but visitors to the Reading Room and Library declined from 8,368 to 6,987.

The Bernard Free Library contained 10,735 volumes at the end of the year, or an increase of 229 volumes. The number of registered borrowers also increased by 156 to 2,055. The returns for the year of report showed a monthly average of 906 readers in the General Department, 94 readers in the Manuscript Department and 771 books on loan. The corresponding figures for the previous year were 789, 75, and 867, respectively. The collecting of ancient manuscripts, towards which the Government of India make an annual recurring grant of Rs. 1,800, made steady progress, and 13 defective Talaing manuscripts, already in the library, were completed and 30 volumes of ancient Talaing manuscripts were bound. The balance at the end of the year rose from Rs. 4,027 to Rs. 5,098.

The Bar Library Association and the Pleaders' Association had an uneventful year. The latter body offered suggestions for facilitating the working of the Courts and some of the recommendations made were accepted and acted on.

The Buddhist Propaganda Society held three successful meetings and its membership increased from 1,879 to 1,907.

The Young Men's Buddhist Association displayed considerable activity during the year and discussed religious, educational and political questions at both public and private meetings. Resolutions were passed with reference to the control of rice, the Burma Reforms Scheme and the new University for Burma and a recommendation was made that Government should pass a Burma Pagoda Trust Act on lines suggested by the Association. The membership of the Association in

Rangoon was 177 as compared with 175 in the previous year, but there are also numerous branches of the Association in the districts. CHAP. VII.—INSTRUCTION.

The Burma Moslem Society had 167 members as compared with 171 in the previous year. It had an uneventful year.

Arts and Sciences.

192. The general condition of art workers in the Province showed no improvement during the year. Owing to the war, buyers were few, money was scarce, and in addition, native products were faced with the competition of cheaply manufactured fancy articles imported from Japan and other countries. Owing to the high prices of silk, the silk-weaving industry at Mandalay and Amarapura languished somewhat, but for the same reason there was some revival in the manufacture of Burmese wearing apparel in the Yaw area of the Pakôkku District, where a peculiar mixture of silk and cotton cloth is woven. The scarcity and high price of imported cotton cloth also gave some impetus to domestic weaving in Lower Burma. The Saunders Weaving Institute at Amarapura in the Mandalay District continued to instruct students, and during the year the Local Government sanctioned the grant of advances not exceeding Rs. 5,000 to passed pupils of the Institute to enable them to start work. A small weaving school was also started at Ye-u in the Shwebo District with three looms of a modern type, but its progress was hampered by the high price of yarn.

The Annual Art Exhibition was held at Rangoon in January 1919, and though there was a decline in the total number of exhibits, competitors from the districts were well represented. The quality of the exhibits was generally good and the low relief silver work sent in was of a very high order of merit. Ivory-carving and niello-work gave evidence of careful and accurate craftsmanship, but the specimens of wood-carving shown were lacking in finish and the exhibits of pottery and lacquer-work were not in any way distinguished. The manufacture of painted umbrellas, more especially at Bassein, showed some signs of expansion. The system of art apprenticeships was continued and sixteen apprentices, of whom seven were resident at the Government Engineering School at Insein, received stipends from Government.

CHAPTER VIII.

ARCHÆOLOGY.

REFERENCES—

Report of the Superintendent, Archæological Survey, Burma, for the year 1918-19.

193. Financial considerations necessitated some curtailment of the proposed archæological programme of the year of report, and the absence on leave of the Assistant Superintendent for Epigraphy for a portion of the year caused the postponement of certain items of the epigraphical programme, but, despite these handicaps, substantial progress was made in both branches of the work of the department. The writing of the letter press of the monograph on the 500 terra-cotta plaques from the Petleik Pagoda at Pagan has been begun, and the monograph on the 400 plaques from the Ananda Pagoda, also at Pagan, has been completed and is in the press. On the epigraphical side the translation with historical and philological notes of twenty inscriptions from among those collected by King Bodawpaya was completed, and the arduous work of compiling an exhaustive list of inscriptions found in Burma has been at length accomplished. A supplementary work, which will contain the names of all historical persons, places, monuments and incidents of historic interest contained in the six published volumes of inscriptions and in the two volumes of the *Hman-nan-yazawin*, has been taken in hand.

Definite steps have been taken towards improving the Palace gardens at Mandalay and a comprehensive programme of requirements for the conservation of the Palace itself has been drawn up. Progress has been made with the preparation of a large scale map of Pagan and proposals for linking up the most important pagodas in that historic site by a system of broad roads are under consideration. The Ancient Monuments Preservation Act was extended to two areas in the Akyab District, where the voluntary work of Maung San Shwe Bu, Honorary Archæological Officer for Arakan, has succeeded in arousing among the Arakanese an intelligent and appreciative interest in the preservation and restoration of their monumental antiquities. The current year has, however, been barren as regards the discovery of new inscriptions or other objects of archæological interest.

The attention of the staff was also devoted to a consideration of several important problems of philological and ethnographic interest. Of these, the most important was perhaps an investigation into the origin of the Shan alphabet, which the Superintendent, Mr. Taw Sein Ko, C.I.E., is inclined to believe was derived from Tibetan rather than Burmese or Talaing sources. The amount expended, on archæological works was Rs. 50,255 as compared with Rs. 11,303 in 1917-18. The Mandalay Division was responsible for Rs. 44,730 of the total expenditure, and this amount was mainly spent on the restoration and preservation of the Palace, and of monasteries and tombs in Mandalay town. The Government of India have sanctioned a grant of Rs. 9,600 from Imperial revenues in 1918-19 and have intimated their intention of making a further grant of Rs. 25,157 in 1919-20, towards the cost of conserving the Palace at Mandalay. The cost of the Archæological Survey rose from Rs. 32,824 to Rs. 37,256 in the year of report.

CHAPTER IX.

MISCELLANEOUS.

REFERENCES—

Report of the Chemical Examiner to the Government of Burma for the year 1918.

Report on the working of the Pasteur Institute and Bacteriological Laboratory for the year ending 31st March 1919.

Statistical Abstract for British India, Volume IV.

Report on the working of the Office of the Superintendent, Government Printing, Burma, for the year ending 31st March 1919.

Ecclesiastical Jurisdiction.

See paragraphs 279 to 300 of the *Report on the Administration of Burma* for the year 1911-12.

Ecclesiastical.

194. During the year the Ven. Archdeacon Blandford retired and the Bishop appointed the Rev. G. H. Seeley, to be Archdeacon and Bishop's Commissary, in his place. The Rev. J. H. Collins also was accidentally killed, and no Chaplains returned from military duty. This resulted in two stations served by the Burma Establishment, Port Blair and Dagshai, being vacant for part of the year. The same shortage of staff as was felt last year in the Chaplaincies of the Additional Clergy Society continued through the year of report.

Stationery.

195. The bulk of the paper used for official purposes continued to be supplied by the Controller of Printing, Stationery and Stamps, Calcutta, from the Indian mills. The cost of stationery supplied to General Departments and Government Presses in Burma during the year amounted to Rs. 71,646 and Rs. 3,30,179, respectively, showing increases of Rs. 3,643 and Rs. 1,06,323, respectively, over the figures of the previous year. The increases are chiefly due to a further rise in the price of paper during the year of report.

Offices of the Chemical Examiner and the Bacteriologist to the Government of Burma.

196. There was a slight fall in the number of articles examined for medico-legal purposes from 1,817 in the preceding year to 1,774 in the year of report. The drop is attributable to fewer articles being received for examination from the Excise Department. There was a decrease of 44 cases of human poisoning investigated and of five of animal poisoning. Stain cases also decreased by 139. In the general Analytical Department only 6,523 articles were examined as against 17,883 in 1917. The cause for the continued decrease is ascribed to fewer samples of cocaine being received for examination. Two hundred and fifty-nine samples of water were examined during the year of report as against 315 in the year previous. The work done at the Bacteriological Laboratory during the year of report consisted of 124 histological and 1,127 bacteriological and serum examinations in addition to 900 protective inoculations, as against 127, 908 and 535, respectively, for the year ending the 31st March 1918.

CHAP. IX.—MISCELLANEOUS.

Office of the Superintendent, Government Printing, Burma.

197. The work which is carried out in the three Government Presses, *viz.* the Central Press and the Jail Branch Press, both in Rangoon, and the Maymyo Branch Press, is chiefly printing for Government Departments. The receipts rose from Rs. 48,714 to Rs. 55,858, and the expenditure from Rs. 3,11,938 to Rs. 3,27,223, in the year of report. The increase in expenditure is chiefly due to high prices of stores as compared with the prices of the previous year and to additional staff entertained for special maps of the Akyab District. The cost of work done in the Central Press was Rs. 2,67,091, in the Jail Branch Press Rs. 88,740, and in the Maymyo Branch Press Rs. 16,161—in all Rs. 3,71,992. The corresponding total for 1917-18 was Rs. 3,48,772. The value of the dead stock at the three Presses, exclusive of lands and buildings, was estimated at the close of the year to be Rs. 5,92,600, or Rs. 39,030 less than in the previous year. The decrease is chiefly due to the depreciated value of the stock. The value of the sales (excluding those of Gazettes) made to the public at the Book Depôt and by the authorized agents amounted to Rs. 15,346 against Rs. 12,617 in the previous year, and the additions to stock were valued at Rs. 53,720. Acts and publications supplied free during the year were valued at Rs. 24,031 against Rs. 27,344 in the previous year. Like the preceding year there was a reduction in the quantity of work done in every department of the Central Press, except the map section, which worked at high pressure throughout. Considerable economy was effected in printing and paper by the reduction in size of a large number of forms and in binding materials by the use of cheaper qualities and of old boards for registers and ledgers. On the recommendation of the Provincial Resources Committee the stock of Survey of India maps at the Book Depôt was considerably enlarged and copies of all maps relating to Burma were obtained and made available for sale to the public and supply to Government Officers.

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